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ABSTRACT

This technical report is from a study that assessed effective content-English-as-a-Second-Language (content-ESL) programs across the United States, from pre-kindergarten through grade 12. The study was undertaken to develop a descriptive analysis of the nature and scope of these programs and the relationship between program policies and practices and background notions of content-language integration. The technical report covers data collected from database searching, mail and telephone surveys, and 20 site visits at representative programs. Issues and findings addressed students, teachers, program duration, purposes, resources used, program and student evaluation and assessment measures, and interaction with native English speakers. The report is divided into the following sections: background summary; methodology; results and discussion; and implications and recommendations. Findings include: the primary home language of most participants was Spanish; most participants were members of low income groups; requirements varied by State; most teachers had received special training and taught regular classes; in most programs there is no English proficiency requirement; and there was some English-language peer interaction. Appendixes include scripts of surveys, State regulations and credentialing practices, key variables operationalization, sample letters, and details on the data base development. (Contains 10 pages of references as well as numerous tables and figures.) (NAV)

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ED 386 925

A DESCRIPTIVE STUDY OF CONTENT-ESL PRACTICES

Contract Number T291004001

Content-ESL Across the USA

Volume I
A Technical Report

Ken Sheppard

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A DESCRIPTIVE STUDY OF CONTENT-ESL PRACTICES

Contract Number T291004001

Final Study Report 2

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Volume I

Submitted to

Office of Bilingual Education and

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Content-ESL Across the USA:
A Technical Report

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EXECUTIVE SUMMARY

I. Purpose

In 1991, the Office of Bilingual Education and Minority Languages Affairs (OBEMLA) awarded a contract to the Center for Applied Linguistics (CAL) to look at content-ESL programs, pre-K through 12, across the country. These are programs in which content and ESL instruction are integrated. The study's explicit goal was "...a descriptive analysis of the nature and scope of content-ESL classroom practices for LEP students, which are components of transitional bilingual education, pull-out, immersion programs or other programs supported with Title VII and/or local funds," and it specifically addresses seventeen questions (see Chapter Three). Its larger purpose was to assess the relationship between program policies and practices and background notions of content-language integration.

II. Broad Tasks

After a thorough review of related research and discussion with a working group of national experts on design options, data were collected for this study under five broad tasks. In the first broad task, schools with content-ESL programs were located through a nomination process and via OBEMLA's database of currently funded projects under Title VII. In the second, these schools were surveyed by mail. Thirdly, a telephone survey of a random sample of schools across the country was conducted. Under the fourth broad task, a large sample of the programs that had been identified under the second was surveyed in more detail regarding such issues as program practices, teacher training and experience, and demographics. Finally, site visits were conducted at a representative sample of twenty programs. Thus, this was a broad-based study employing a variety of data-gathering mechanisms whose aim was to describe current practices in a rapidly changing and previously unstudied field.

III. Issues Addressed in Findings

· What are the language, ethnic, economic and educational backgrounds of students enrolled in content-ESL programs? (Finding #1)

· What are teacher certification and other requirements? (Finding #2)

· What is the education/training experience of teachers in such a program? (Finding #3)

· What is the average length of time in which the programs have been in operation? (Finding #4)

· To what extent and for what purposes is the students' native language used? (Finding #5)

· What instructional resources, including curriculum and materials, are used in such programs? (Finding #6)

· Is there collaboration/coordination between the content-ESL teacher and the classroom/content teacher? How does it differ according to subject matter and grade level? What are the differences between elementary and secondary level teacher collaborations? (Finding #7)

· Are there differences in content-ESL approaches, methods, strategies at the elementary and secondary levels? (Finding #8)

· What special modifications are made when using content-ESL

instruction with older students? (Finding #9)

· To what extent do teachers revise or modify initial instructional plans during the course of an academic year? On what basis do they make these changes? (Finding #10)

· What are the measures used to assess student subject matter and academic language proficiency? (Finding #11)

· What level of English language proficiency do LEP students need to develop before receiving content-ESL? Are there subject matter threshold levels? (Finding #12)

· What are the procedures and criteria for identifying LEP students for entry and exit? (Finding #13)

· How is student progress monitored? (Finding #13)

· What follow-up procedures are used? (Finding #13)

· Is there a possibility of comparison with students in more traditional pull-out, non-content-based ESL at both the theoretical and applied levels? (Finding #14)

· What local and state laws/court decisions govern the delivery of instructional services? (Finding #15)

· What interaction opportunities are there with native English speaking peers? (Finding #16)

· To what extent do content-ESL practices match underlying theories? (Finding #17)

IV. Findings

1. · Spanish is the predominate primary home language (PHL) of students in content-ESL classes. Eighty-one percent of the programs report the presence of Spanish speaking students, and 57 percent of the total report that over half of their students have Spanish as their PHL.

· More than 170 PHLs, however, are represented among the programs. Thirty-three percent of teachers say the majority of their students read and write their PHLs "adequately"; 29 percent report that their students read and write them "poorly."

· As for ethnicity, administrators report students from a wide variety of countries of origin. A breakdown appears in Chapter Four.

· Seventy-seven percent of the programs characterize their students as primarily low income. Only 5 percent of the programs reporting say that their students come primarily from moderate to high income homes.

· Forty percent of the programs say that 75 to 100 percent of their students have been schooled continuously in the U.S.

· In 83 percent of the programs reporting, fewer than 20 percent of the students have experienced refugee education.

· In 79 percent of the programs reporting, fewer than 20 percent have

experienced migrant education.

· A complete summary of these findings can be found in Chapter Four, pages 69-76.

2. · Requirements vary widely from state to state. Because of widespread restructuring, policies governing credentialing in many states are in flux.

· A discussion of this finding can be found in Chapter Four, page 76. A summary of current requirements appears in Appendix XII.

3. · Eighty percent of the teachers involved in content-ESL programs have received specialized pre- or in-service training in content-ESL.

· The median number of years the reporting teachers have taught in content-ESL programs is four. The bachelor's degree is the highest level of educational attainment for 43 percent of the teachers; the master's degree for 55 percent. Others have higher degrees.

· A complete summary of these findings can be found in Chapter Four, pages 76-77.

4. · While 50 percent have been in operation fewer than five years, 37 percent have existed for more than six years. The rest have been in operation between five and six years.

· A complete summary of these findings can be found in Chapter Four, pages 77-78.

5. · Students' PHLs are used for instruction in 50 percent of the programs.

· Only slightly more than 10 percent of the programs devote more than 50 percent of class time to instruction in those languages.

· A complete summary of these findings can be found in Chapter Four, pages 78-79.

6. · Roughly 54 percent of the programs have developed curricula specifically for content-ESL. Of these, 31 percent have content-ESL science curricula, 28 percent math curricula, 36 percent social studies curricula.

· Secondary schools are more likely to use outlines, notes, and handouts than elementary schools, and elementary schools are more likely to use word banks and audio cassettes.

· While most programs use the same material as regular classes, the majority (90 percent) also create materials or activities for their students.

· A complete summary of these findings can be found in Chapter Four, pages 79-83.

7. · Sixty-three percent of the teachers who responded teach both ESL and subject matter. Of the rest, 12 percent are ESL teachers who coordinate with content teachers, and 3 percent are content teachers who coordinate with ESL teachers. There are no significant differences in these patterns between elementary and secondary teachers.

· A complete summary of these findings can be found in Chapter Four, pages 84-85.

8. · More time is spent with PHL support in the primary schools than in elementary, intermediate, or high schools.

· High school students spend more time on academic tasks that require reading and writing in English, such as math and science, than do elementary school students.

· See Appendix II for definitions of these terms.

· Elementary school teachers are more likely to use (what have been termed in this report) progressive classroom activities than high school teachers.

· High school teachers are more likely to use teacher-centered modifications in their presentations of instructional materials than primary school teachers.

· A complete summary of these findings can be found in Chapter Four, pages 85-90.

9. · No special modifications are made for older students if older students are defined as those whose schooling has been interrupted (see Chapter Four for a complete discussion of this issue).

· The definition of "older students" and a complete summary of these findings can be found in Chapter Four, page 90.

10. · Since the study was not longitudinal, little can be inferred from these data about the extent to which teachers modify their plans over the course of a year.

· A complete summary and discussion of these findings can be found in Chapter Four, page 91.

11. · Teachers in over 50 percent of the programs report using, in descending order of frequency, informal questioning, teacher-made paper-and-pencil tests, student projects, quizzes, journals, compositions, and simulations or oral reports.

· Administrators in over 50 percent of the programs report using teacher-made tests and quizzes, grades, standardized language tests, and standardized content tests.

· A complete summary and discussion of these findings can be found in Chapter Four, pages 91-93.

12. · In 79 percent of the programs, there is no English proficiency requirement for participation.

· Nine percent say the students should know basic English, while four percent report that the students should be "at an intermediate level."

· No subject matter threshold levels are reported.

· A complete summary of these findings can be found in Chapter Four, page 93.

13. · As indicated, most programs do not require English proficiency for participation. Other criteria are discussed in Chapter Four.

· Student progress is monitored in a variety of ways, as indicated in Finding #11 above.

· A summary of the assessment measures and follow-up procedures used appears in Volume II.

· A complete summary of these findings can be found in Chapter Four, pages 93-95.

14. · There is a possibility of formal comparison, provided certain conditions are met. See Chapter Four for a discussion of this issue.

· Seventy-nine percent of the teachers indicate that students in content-ESL classes learn English listening, speaking, reading, and writing skills faster than their previous students in conventional grammar-based classes.

· Eighty-nine percent say that they also learn more content faster than students in grammar-based classes.

· A complete summary of these findings can be found in Chapter Four, pages 95-96.

15. · Sixty-two percent of administrators report that a rapid influx of LEP students motivated the creation of their content-ESL programs; only 28 percent indicate that the impetus was a legal mandate.

· A complete summary of these findings can be found in Chapter Four, page 97.

16. · Most programs report that their students interact primarily with native English speakers in organized activities (59 percent) and conversations with friends and mentors (53 percent).

· A complete summary of these findings can be found in Chapter Four, pages 97-98.

17. · In brief, there is considerable evidence to suggest that many content-ESL teachers have adopted methods and strategies associated with progressive trends in teaching; these are consistent with background notions in current educational theory.

· There is little evidence of an emerging instructional approach tailored to content-ESL instruction specifically, however. Rather, teachers draw eclectically on a variety of instructional practices from a variety of sources.

· The extent to which practice and theory converge is discussed in detail in Chapter Five, pages 114-124.

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Chapter One: Introduction

Demographics drive approaches to educating students with limited English proficiency now is use[1]. Increasingly, the classroom is multiethnic, multiracial, and multilingual. Students arrive at the school door with diverse expectations of the school, the teacher, and themselves as learners, with various learning styles and strategy preferences, with a multiplicity of experiences in academic settings. Schools are thus faced with the challenge of creating programs that are sensitive to such differences while maintaining standards of academic achievement that will open opportunities for these students even they cannot foresee.

A number of instructional models have been developed to meet this demand. They vary in the role they assign the students' mother tongues and the type and amount of English as a second language (ESL) instruction they provide. One such model is "content-ESL" or integrated language and content instruction, the subject of this three-year study.

The term content-ESL designates a variety of special alternative

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[1]1 Although estimates of the numbers of language minority students in U.S. schools vary, there is a consensus that they are increasing rapidly. The increase is attributable to the population's youth and fertility, as well as to liberalized immigration policies. In 1980, there were 18 million language minority people in the U.S.; in 1990, there were 25 million; this represents a 41 percent increase (U.S. Department of Education, 1993). An estimated 3 to 4 million school-age children were limited in their English proficiency in 1980; by 1990, that number had grown to over 5 million. In the 1980s, over 5 million people from non-English speaking countries were admitted legally to the United States (including at least a million school-age children), while undocumented immigration also increased dramatically. In that period, according to the U.S. Census, the Asian population doubled and the Hispanic population increased by more than 50 percent. As a consequence, major metropolitan school districts report rising numbers of language minority students. In Los Angeles, for example, more than 50 percent are language minority; this means that one in six school-age children is limited in English proficiency. The wave is not expected to recede in the near future.

instructional programs implemented by language and regular content teachers to integrate the teaching of English and content. Thus, for example, language teachers use academic subject matter texts, tasks, and skills as vehicles for teaching ESL in what is commonly referred to as content-based ESL or integrated language and content instruction, while regular classroom teachers or teachers of mathematics, science, social studies, and the like adapt the language of texts and tasks and other instructional features to make instruction accessible to students of diverse language proficiencies in what is commonly referred to as sheltered instruction, sheltered English, or language-sensitive content instruction. Ideally, the ESL teacher should systematically reinforce the students' understanding of content and the content teacher should reinforce the students' knowledge of English usage. In this fashion, students learn the language they need to function in academic classes, revisit the material they have covered in content classes with a teacher who is sensitive to the complexities of communicating about content in an unfamiliar language, and gradually improve their understanding of academic subject matter.

A rationale for content-ESL can be found in many disciplines. Most important are the insights from second language acquisition and learning theory and practice. However, relevant perspectives can also be found in other academic and pedagogical disciplines since language serves as a medium for instruction, discussion, and evaluation across the board in education. Hence, mathematicians, scientists, and other educational specialists have also studied the constraints imposed by academic language, especially those related to reading and writing in their fields.

Since there had been no systematic study of content-ESL, and the phenomenon is growing and influencing service delivery in the public schools, the Office of Bilingual Education and Minority Languages Affairs (OBEMLA) contracted with the Center for Applied Linguistics (CAL) in 1991 to conduct this study. Its explicit objective was "...a descriptive analysis of the nature and scope of content-ESL classroom practices for LEP

students, which are components of transitional bilingual education, pull-out, immersion programs or other programs supported with Title VII and/or local funds"[2].

In the following chapters, background studies and commentaries are surveyed to provide a basis for this pedagogical innovation and a rationale for the study (Chapter Two), the study's methodology is spelled out (Chapter Three), its findings relevant to the seventeen questions the study was designed to address are summarized and discussed (Chapter Four), and implications are specified (Chapter Five). Chapter Five also includes a decision matrix and a tier analysis. All study instruments and documents and data summaries appear in **Appendices**.

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[2] Contract No. T291004001.

Chapter Two: Background Summary

The purpose of this summary is to:

- Discuss the theoretical underpinnings for content-ESL
- Describe program models that have been developed to accommodate the language and academic needs of language minority students
- Summarize the major instructional approaches or strategies that are currently used to teach content-ESL and provide sheltered instruction
- Describe a sample of materials that draw on academic subject content as vehicles for language instruction and the resources available in designing curricula and instruction
- Review those elements of program administration that affect language minority students
- Note methods and materials that have been developed for learner assessment and program evaluation
- Describe the evolving nature of teacher education.

The summary also provides a basis for the seventeen questions the study was designed to answer, which appear in 2.9 below. Its major themes are evaluated in the light of study data in 5.3.

2.1. Underpinnings

2.1.1 Second Language Acquisition Theory and Practice

As perspectives on learning generally and language learning specifically have changed, approaches to language teaching have evolved from grammar translation, through audiolingualism, to communicative methods

(Richards & Rodgers, 1986; Chamot & Stewner-Manzanares, 1985). In short, language instruction has shifted its focus from discrete linguistic features to contextualized and meaningful tasks requiring enhanced student input and interaction (Savignon & Berns, 1984; Widdowson, 1978). While oral production is still important, it has been redefined to accommodate literacy and cognitive-academic skills in such activities as those that require students to talk about what they have read or collaborate on compositions.

Today, many theories maintain that second languages are acquired most efficiently in conditions that resemble those associated with first language acquisition. That is, stress is placed on meaningful communication rather than form; input is at or just beyond the level the learner commands; and the unproductive anxiety typically absent in child language acquisition, but frequently associated with schooling, is minimized[3]. Furthermore, modification of the target language, called "comprehensible input" (Krashen, 1985), is considered crucial for the acquisition of everyday, as well as academic, language (McLaughlin, 1987; Wong Fillmore, 1989).

On this point, Cummins (1980, 1987) has posited the existence of two types of underlying proficiency: basic interpersonal communication skills (BICS or social language) and cognitive-academic language proficiency (CALP or academic language). These differ in the degree of contextual support each offers and the level of cognition each requires for processing. Thus, while social language is usually highly contextualized, informal, and relatively accessible cognitively, academic language is abstract, decontextualized, formal, and cognitively more demanding. As every teacher knows, some students, though orally fluent, have trouble with academic tasks, especially those requiring reading and writing; others, while

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[3] Krashen has coined the term "affective filter" to refer to the effect of an unsympathetic learning environment on the second language acquisition process.

successful in reading and writing, have trouble with discussion and other oral activities.

Theoretically, students acquire social language within three years but need up to seven for academic language, depending on the extent to which they have acquired (theoretically transferable) academic language in their native codes (Cummins, 1980; Collier, 1989). Many educators therefore recommend that schools provide language minority students with appropriate content area support as they build proficiency in English (Collier, 1989). Many teachers now plan authentic academic tasks and/or use academic textual material for language learning; concomitantly, regular classroom teachers adapt tasks and texts to make them more comprehensible to second language learners. These allied processes constitute the essence of content-ESL, which under the definition employed in this study is implemented by both the language teacher ("content-based" ESL) and the regular classroom teacher ("language-sensitive" or "sheltered" content instruction) (Crandall, 1987; Short, 1991). Content-related tasks associated with this approach require students to think and problem-solve in the target language (Mohan, 1986, 1990; Cummins, 1991; Diaz & Klingler, 1991) and thereby promote their general cognitive development and acquisition of academic language.

2.1.2 Foreign Language Education and Immersion

Foreign language instruction has also been a major source of input for content-ESL planners and practitioners. In the U.S., this form of instruction can be classified as to its goals, its level of integration in the school curriculum, and its relation to English. Curtain and Pesola (1988) identify three types of elementary school instruction: immersion, FLES (foreign language in the elementary school), and FLEX (foreign language exploratory or experience programs). Their view is "that language proficiency outcomes are...proportional to the amount of time spent...in meaningful communication in the target language" (Curtain & Pesola, 1988).

Historically associated with Canadian education, immersion is

relevant to content-ESL instruction because it aims at near-native proficiency in a non-home language by using that language as a medium of instruction across the curriculum. Whether immersion for language majority children begins in kindergarten or middle school, most of the content specified in the regular English-language curriculum is taught by means of the language. Furthermore, even FLES and FLEX entail the integration of language and content, though perhaps less comprehensively. Reeves (1989), for example, identifies a type of "content-based (or content-enriched) FLES" in which subject matter from the regular English curriculum is taught in the second language, with the aim of developing higher order cognitive skills and promoting a higher level of language proficiency.

These programs share certain principles with instructional programs for language minority children. In immersion for language majority children, regular subjects are taught in two languages, but instruction is differentiated so that different subjects are taught in each (Genesee, 1987). Thus, some subject matter is absorbed exclusively in the foreign language. Furthermore, the process simulates the social and psycholinguistic conditions (comprehensible input, a "silent period," meaningful communication, and attention to message content) that characterize first language acquisition (Krashen, 1984; Genesee, 1987). Additionally, instruction in the second or foreign language covers the content of the regular curriculum at a comparable level of difficulty, and such programs provide initial literacy instruction in a language other than the language of the home (Lapkin & Cummins, 1984).

The academic outcomes of Canadian and U.S. immersion instruction have been consistently positive. Numerous studies show that native English-speaking children master the curriculum without falling behind in English, while at the same time developing high levels of proficiency in a non-home language (Lambert & Tucker, 1972; Swain, 1984; Krashen, 1984; Genesee, 1987). Moreover, immersion students form positive attitudes toward speakers of the target language without sacrificing their ethnolinguistic

identities. Finally, the bilingualism that immersion programs promote is of an "additive" type (Lambert, 1984) that does not undermine students' native languages and cultures.

Researchers, however, caution that, without modification, Canadian-style immersion may not have a lot to contribute to the design of programs for language minority students in the U.S.. Because of the subordinate sociopolitical and economic status immigrants often occupy in this country, instruction here often leads to "subtractive" bilingualism. In other words, acquisition of the dominant language impacts students' mastery of their native language, with all that that implies for self-esteem and family cohesion. In Canada, by comparison, the second language, at least in French immersion, is to some extent present in the wider environment, even to some extent in anglophone Canada. Furthermore, all immersion teachers understand the students' native (home) language, English, even if they use it only sparingly. By comparison, few ESL teachers in this country command their students' native languages to a comparable degree. Finally, the students' native language -- English -- is taught as a subject and expanded in the upper grades, while few programs in this country make so conscientious an effort to develop students' native competence. Since the circumstances are different, therefore, the Canadian model has only marginal relevance for the education of language minority students in the U.S., though there are some similarities between that model and models that have been created in this country for such students.

New forms of immersion, variously called <u>two-way</u>, <u>developmental</u> and <u>bilingual</u> immersion offer hope of a synthesis by using both languages for content instruction for both English majority and language minority students (Tucker & Crandall, 1989; Lindholm, 1990; Christian & Mahrer, 1992). Two-way immersion, for example, has all the advantages of immersion that language majority students enjoy while raising the comfort level for language minority students by providing them with literacy and academic instruction in their native language as well as English. Similarly, native

English-speaking students learn content via the target language. Such programs also put all learners in touch with native speakers of another target language and, specifically, give language minority students an important social role to play in this respect. These programs have generally been successful: both groups achieve proficiency in the two languages, do well academically, and form positive attitudes toward the target languages and their speakers via the interaction with peers these programs offer (Genesee, 1987; Tucker & Crandall, 1989; Lindholm, 1990).

2.1.3 English for Specific Purposes

One of the best documented models of content-based instruction is English for specific purposes (ESP). This model is described by Brinton et al. (1989) and others as experience-based instruction with an emphasis on language content that reflects the needs of learners "for whom the learning of English is auxiliary to some other...academic purpose" (Widdowson, 1983). In an ESP curriculum, the goal is to provide access to material in a specified academic area through tailored language instruction. That goal is achieved through the coordinated efforts of teachers of both subject areas and language (ESL) as well as through the language teacher's use of texts (often modified) from the subject area (Crandall, 1987). In its earliest stages, it concentrated on the language and texts of specific subject matters. It was largely a postsecondary phenomenon.

After Hutchinson and Waters (1987), ESP began to pay as much attention to **how** people learn (the learning process) as to **what** people learn (language). Today, a learning-centered approach, based strictly on learners' needs, predominates; and ESP teachers have redefined their role: they are no longer teachers of the language or the subject matter, but interested **students** of the subject matter with a linguistic perspective in a learner-centered environment. Similarly, content-based language instruction at the postsecondary level now aims at the development of communicative competence in the language of mathematics, sociology, science, and the like (Brinton, Snow & Wesche, 1989; Cantoni-Harvey, 1987;

Mohan 1986, 1990; Richards & Hurley, 1990; Scarcella & Oxford, 1991; somewhat less relevantly, Secada & Carey, 1990). Cross-curricular instructional initiatives for native English speakers such as "writing across the curriculum" and university-level immersion in foreign language instruction parallel this trend. The shared focus is meaningful content in the target language, and the universal aim is the development of academic language skills.

Content-based instruction has given rise to three types of instruction at the postsecondary level: the theme-based model, in which language skills are integrated in the study of a theme (Brinton, Snow & Wesche, 1989); the adjunct model, in which separate language and content courses are linked through the coordination of the instructors and curricula (Snow & Brinton, 1988); and the sheltered model, in which learners are taught the language and the subject matter in simplified English appropriate to their levels of proficiency (Edwards et al., 1984). By means of these and other models, students are today provided with instruction at a relatively sophisticated content level that equips them to function rapidly in English in an academic setting and beyond.

2.1.4 Research in Learning Styles and Strategies

The pervasive attitudes students assume in learning a new subject or tackling a new problem (Oxford, Ehrman, & Lavine, 1991; Oxford, 1990, 1991) are sometimes referred to as learning styles. In sum, they constitute a synthesis of cognitive, affective, and behavioral elements. Additionally, students also typically exhibit specific learning behaviors called learning strategies that reflect these basic underlying styles. Similarly, teachers select teaching strategies that mirror favored teaching styles, which in turn may echo style preferences they themselves exhibit as learners, which in turn may embody the ways in which they were themselves taught, for better or worse. Learning and teaching styles and strategies thus form a complex web of behaviors and assumptions, a labyrinth of subtle relationships, that can only be externalized after considerable reflection,

introspection, and self-analysis.

Both styles and strategies are important in the content-based classroom. Linguistic and cultural diversity carries along with it a diversity in learning styles that requires a variety of instructional strategies. Each learner is a composite of style characteristics: global and analytic; thinking and feeling; intuitive/random and sensing/sequential; reflective and impulsive; and visual, auditory, and tactile. Each of these style dimensions is accompanied by a set of associated learning strategies. Since differences along these lines often reflect cultural differences, style and strategy conflicts can easily occur between teachers and students in instructional settings where language and content are integrated. Anticipating and defusing these potential conflicts is a priority for educators working in a cross-cultural environment.

2.1.5 Cognitive Theory and Thinking Skills Instruction

In 1983, in a broad prescription, the National Science Board Commission on Pre-College Education in Mathematics, Science, and Technology announced that, while educators should renew their commitment to "the basics," the basics in the 21st century would not comprise only reading, writing, and arithmetic but also communication, higher problem-solving skills, and critical thinking. Today, most educators see thinking skills as "mental techniques or abilities that enable human beings to formulate thoughts, to reason about, or to judge" (Beyer, 1987) and the teaching of such skills as essentially a matter of fostering their development. This new interest in the underlying skills associated with academic performance has not escaped the attention of content-ESL educators; indeed, it has had an effect on curricular planning in that area as much as in others.

Some of the current research suggests that human beings think in symbols (pictures, mathematical and music notation, words, etc.): the outcome of this thought process, whatever its shape, is, as Vygotsky says, "born through words." An allied notion is that the expressive uses of

language -- speaking and writing -- are a "basic means of changing thought into action" (Glatthorn, 1985). Thus, in this somewhat Whorfian view, language is not just a medium of communication, but also the medium through which we perceive and think (Tipper, et al. 1989), the means whereby our encoded thoughts turn themselves into decisions. Over against this notion that thoughts are language-specific, however, there is a widespread assumption that decisions and their associated ratiocinative processes are transferable from one language to another. The job of enabling language minority students to hone their contextual and dispositional thinking skills is therefore a complex process. It is also obviously a key objective of any instructional program that aims at helping them achieve success in mainstream classes.

2.2 Instructional Perspectives

Arguments for integrating language and content instruction come not only from disciplines related to the learning and teaching of languages, but also from allied areas. During the past three decades, the teaching of reading and writing have undergone radical change in response to theories about the nature of reading and writing and in recognition of the diversity of texts and tasks that confront students in and out of school. As a result, two important changes -- a shift from a product to a process orientation and an inventory of the actual reading and writing demands in various academic areas (science, mathematics, and social studies) -- have occurred. Instructional efforts such as "reading in the content areas" and "writing across the curriculum" are now widely endorsed and widely practiced.

2.2.1 Reading Theory

Traditionally, reading theory saw reading as a bottom-up process: readers derived meaning from text in a linear, additive fashion (Gough, 1972; LaBerge & Samuels, 1974; Carver, 1977-78). While basic decoding and encoding skills, such as are on display in a bottom-up strategy, may

transfer across languages (Hakuta, 1980), the extent of transfer is still an open question. Differences in languages and cultural backgrounds can affect text processing and interpretation. For this and other reasons, reading is now seen as a meaning-constructing process that moves from the top down and calls on bottom-up processes only when alternative strategies are blocked (Goodman, 1986; Smith, 1988; Kincheloe and Steinberg, 1993); it is also profoundly interactive, as students derive or construct meaning from the interaction of text and experience. Much of today's focus, therefore, is comprehension, the construction of new ideas out of existing ones, and the use of prior knowledge to support and create new knowledge (Adams & Bruce, 1982). In some models (Rumelhart & Ortony, 1977; Samuels, 1977; Stanovich, 1980), "higher order" or interpretive taxonomic levels of processing (Bloom, 1956) are held to influence processing at lower stages, thus obliterating (or constraining the need for) primitive decoding.

In the newest constructivist models of comprehension, reading is further viewed as a collaborative effort between writer and reader, with the reader constructing meaning while absorbing input by tapping prior real-world and linguistic knowledge. Since the whole process is seen as dynamic and recursive, interaction with text is unstructured and unplanned. When less experienced readers interact with and interpret text in a second language, however, instruction in text variety and opportunities to discuss and socially construct meaning (McDermott, 1977; Cazden, 1981, 1986) are also needed. Familiarity with vocabulary, syntax, and discourse features is critical for achievement in this regard.

2.2.2 Writing Theory

On one level, writing is increasingly viewed as a social process (Hawkins, 1976), with writers interacting with and learning from each other as they develop texts for real audiences. These interactions may involve discussion, reading, and pre-writing, which lead to the development of drafts and revisions before a final draft is edited and published. In the process, students are understood to be at work learning from the process

itself, and a trend called "writing to learn" has spun off writing across the curriculum. While whole language theorists stress narrative writing, writing theorists and practitioners have since pointed out that, if students are to write like scientists, mathematicians, or historians, they must master discipline-specific discourses (Goodman, 1986). They must, in other words, practice expository and persuasive writing. As a result, essay questions in mathematics and such devices as journals and reading logs in social studies and science have become commonplace. ESL teachers have therefore expanded the types of writing assignments they make and championed the use of graphic organizers and frames in the writing process.

On another level, writing is now more deeply appreciated as a cognitive process, and the relationship between the students' first and second languages and their effect on cognition has been explored by many researchers. Cummins (1979) and others, for example, claim that literacy skills transfer from one language to another: a student's academic proficiency in her native language facilitates the transfer of literacy-related skills to her second. In other words, metalinguistic knowledge of some language other than English, rather than inhibiting literacy development in that language, may actually enhance it. If that is the case, then LEP students who have received continuous age-appropriate instruction in a language other than English are likely to find the acquisition of English literacy skills easier than those who haven't. They will still, however, need to master the discourse, including conventions that alert the reader to the writer's sophistication in that discourse. If they are going to manage texts in an academically savvy way, they must be taught how to decipher and write about and otherwise dominate them and, in the process, will acquire the literacy skills needed for academic success (Mohan, 1986; Zamel, 1983). In sum, the development of writing abilities in a second language among students in academic programs is a complex dynamic. Similarly, the writing process itself is now understood as more than a mysterious and idiosyncratic series of activities that precede the

emergence of a product. For these and other reasons, writing now plays a deeper and more critical role in learning generally.

2.2.3 Mathematics Teaching

The days when it was assumed that the study of math required little attention to language are behind us. Math educators and researchers today recognize that an activity-specific register is associated with problem-solving in math (Halliday, 1978; Cuevas, 1984; Mestre, 1984; Secada & Carey, 1990) and that math proficiency includes a mastery of the discourse of mathematics as well as a grasp of mathematical concepts. While the abilities of non-native students are equal to the task of understanding mathematical concepts and processes in their native languages, they have trouble when teachers do not modify their language to match their levels of proficiency (Mestre & Gerace, 1986). Students often have trouble, for example, articulating their comprehension of mathematical concepts and processes (Dawe, 1983; Kessler, 1986). Linguistic complexities associated with the technical language of mathematics and constraints on the expressive capacities of students thus impinge on their performance and make it difficult for school personnel to get a precise fix on their true capabilities. For these and other reasons, math teachers are increasingly sensitive to the communicative limitations of language minority students in English and, as indicated above, have begun to require considerably more instructional conversation around math problems, more group work, and more expository writing. The growing preference for instructional conversation around math topics is reflected in, among other initiatives, the National Assessment of Educational Progress (NAEP), which in its constructed responses puts an undue burden on students who do not know the test language natively.

2.2.4 Social Studies Teaching

Although ESL and foreign language teachers have always had cultural objectives, even in non-content-based courses, social studies educators have been slow to address issues of language. Even when impelled to

confront these issues (e.g., the National Council for the Social Studies, 1976), they rarely looked deeply at the problems of language minority students in social studies classes. While they conducted research on reading demands in the social studies -- examining textbooks and measuring student comprehension in relation to prose type (e.g., expository), coherence, visual organization, headings, and illustrations (Crismore, 1985; Beck, 1989; Brophy, 1991), their primary focus was their effects on native English speakers. They may have examined the frequent mismatch between authorial intention and student comprehension, but they did not do so with reference to an expanding multicultural student population. A global perspective has often been described as potentially critical in the building of self-esteem among language minority students and their acclimatization, but few studies have been carried out along this critical interface. Only recently have national organizations (e.g., the National Commission on Social Studies in the Schools, 1989) recommended guidelines and strategies for teaching language minority students, and only recently has the attention of social studies educators been drawn to the critical needs of this population (Short, 1991). These facts are particularly distressing because, of the three or four subject matters most often integrated in ESL classes, social studies is probably the most dependent on prior knowledge of a cultural nature and the most language dependent.

2.2.5 Science Teaching

Scientific literacy is a socially and culturally determined way of thinking and knowing with its own values, patterns of discourse, and vocabulary. To become scientifically literate, students must be acculturated into ways of making sense of what they see, say, read, and hear in science activities (Rosebery et al., 1990). Acculturation will be successful to the extent that students participate in allied discourses, but it may entail a long and intimate apprenticeship in a community that engages in scientific sense-making (Bakhtin, 1981). For language minority students, this apprenticeship is often complicated by cultural and

linguistic differences, for cross-linguistic discourses, by definition, conflict in their underlying assumptions and values, their ways of making sense, their viewpoints, and the objects and concepts with which they concern themselves (Gee, 1989).

As recent National Assessment of Educational Progress (NAEP) data show, school science is often an amalgam of lecture, demonstration, memorization, and assessment (Mullis & Jenkins, 1988). Students may master the facts of science but learn little about the nature of scientific investigation (Rosebery et al., 1990). Therefore, doing science must become part of the teaching of science -- i.e., students must learn scientific ways of thinking and talking, and investigation should be put at the center of the enterprise (Warren et al., 1989; Rosebery et al., 1990). Investigative, inquiry, or discovery approaches require students to pose questions, write hypotheses, plan research, collect data, and analyze data to reach conclusions. In these approaches, students become active problem solvers rather than merely passive observers of a teacher's demonstrations or readers of text.

Because so much of what goes on in science classes is materially driven, researchers have recently examined instructional materials in science to discover how they help or hinder teaching and learning. In general, published materials for teaching science have been faulted for their failure to take the reader into account (Anderson, 1987; Armbruster, 1991; Meyer, 1991), their failure to engage students cognitively, and their implicitly constricted view of science. Thus, they often confirm students' assumptions that science is essentially an inventory of established facts (Rosebery et al., 1990; Padak & Davidson, 1991; Alvermann & Hinchman, 1991; Holliday, 1991). Meyer (1991) and similar studies show that, without strategies for accessing the content of science textbooks, students will overlook key ideas and their interrelationships (Armbruster, 1991; Harrison, 1991; Padak & Davidson, 1991; Holliday, 1991). Our review of the literature reveals a deeply felt and universally acknowledged need for more

challenging and more engaging material in science and, beyond that, a need for such material tailored to the talents and aspirations of content-ESL students.

2.3 Instructional Approaches

While the strategies currently used to teach content-ESL and provide sheltered instruction are alternately referred to as approaches, methods, and techniques (Anthony, 1979; Richards & Rodgers, 1986), we refer to them below as instructional approaches and strategies interchangeably. Although a number of strategies appear in the disparate literature on content-ESL, seven major ones are often singled out: whole language, language experience, cooperative learning, task-based language learning, the natural approach, total physical response (TPR), and cognitive academic language learning (CALLA). One recent issue of Educational Leadership, for example, identified whole language, cooperative learning, and instruction integrating language and content in thematic units as "three themes for the future" across the range of educational possibilities.

2.3.1 Whole Language

Anderson, et al. (1985) revealed that much reading activity required of primary students consists of completion exercises in workbooks requiring students to pay attention to isolated reading skills rather than meaning. Until recently, second language reading had also promoted such activities -- activities, in other words, that stress bottom-up processing, sound-symbol correspondence and isolated words before sentences, paragraphs, and whole texts. Unfortunately, this approach has not left students with the impression that reading is pleasurable or led to high achievement. Nor has it helped language minority students move from learning to read to reading to learn. Rather, conventional bottom-up strategies, which stress the incremental mastery of subsidiary skills like phonic decoding, have put language minority students at a disadvantage and often constrained their chances for success (Goodman, 1988; Heald-Taylor, 1989).

Whole language is different. It is an instructional philosophy associated with a variety of instructional techniques that encapsulates the view that meaning and "natural language" are the foundations of literacy development (Smith, 1988). In contrast to more conventional approaches, whole language takes a top-down tack and starts students out on whole texts that engage them meaningfully. Rather than focusing on bits of decontextualized language that are then rehearsed in exercises and drills, it directs their attention to vocabulary or spelling only when such aspects are relevant to the process of decoding for general meaning (Smith, 1979; Cheek & Filippo, 1989). It has proven successful with second language learners because it requires them to use the new language, not just to decode for general meaning, but to express themselves personally, and thus engages them more deeply and motivates higher achievement.

In a whole language approach, students are readers and writers from the very first day, and in many programs their work results in actual publication. In using authentic texts and creating an atmosphere in which reading and writing are pleasurable, whole language leapfrogs exercises from ditto sheets and workbooks to meaningful interaction with the text. In general, whole language advocates favor reading material that is simple, straightforward, and colloquial for the simultaneous development of oral and written language (Goodman, 1986), though it may be content relevant. They also advocate techniques that enhance productivity in reading and writing. These include the use of stimulating materials for silent or shared reading and reading aloud activities. In their classrooms, achievement is measured by how well students communicate their feelings, ideas, and attitudes in speaking, reading, and writing (Caprio, 1989). For example, teachers evaluate students by watching them during class activities (Goodman, 1986) and helping them evaluate their own progress. Needless to say, students respond well to the collaborative making of meaning because it gives them ownership over text and validates their perceptions in a way that mere fill-in or completion exercises do not.

In sum, the current view is that whole language is particularly appropriate for ESL students because it incorporates authentic activities that allow them to use language to think about and find meaning even without high proficiency -- in short, to see reading and writing as empowering processes leading to self-expression rather than the simple mastery of discrete skills.

2.3.2 Language Experience

Language and experience are the foundations of the language experience approach, which incorporates all the communication skills -- speaking, listening, reading, and writing. Based on the idea that students are best able to write what they are able to say and read what they are able to write, the approach guides students to translate familiar experiences into text and text into schemata. In sum, students' words are recorded by teachers to create text, and that text then becomes the basis for reading instruction (Van Allen & Allen, 1976). Because the words in the text are the students' own, they are readily understood; those that remain obscure often take on meaning from the context. In this fashion, reading becomes a non-linear process in which meaning is constantly made and recycled in a collaborative dynamic.

In this approach, learning to read is facilitated by the match-up between the students' oral and written language patterns. In other words, learners rarely confront confusing language of which they have no contextual understanding (Van Allen & Allen, 1976; Enright & McCloskey, 1988). The approach aids the comprehension of second language students by validating their language and experience (Rigg, 1989), which are often discredited in educational institutions by implication if not intention. As their interests and experience promote literacy development and their knowledge of the language gradually expands, they are introduced to texts that lie just beyond what they already know until they are ready to confront decontextualized and cognitively more demanding material.

As Throne (1994) and others have pointed out, the language experience

approach and the whole language "philosophy" have a lot in common. One common thread is the integration of all language "experiences," i.e., skills, and another is the integration of children's literature into thematic units. On the other hand, differences include the dependence in language experience on collectively generated student texts for reading and writing activities. As Throne comments, whole language "puts more emphasis on children doing their own writing and using trade books for teaching reading." On the whole, however, both strategies put learners -- their tastes, interests, and experiences -- at the center of the process and build literacy activities around familiar content.

2.3.3 Cooperative Learning

In cooperative learning, students engage in activities that require them to work together in small heterogeneous groups to accomplish a common purpose within a specified time period (Slavin, 1987; Cochran, 1989; Jacob & Mattson, 1990). In first language contexts, it has had positive effects on students' attitudes toward themselves and each other (Slavin, 1985; 1987; Johnson et al., 1985, cited in Slavin, 1989, 1990), but it has also been widely recommended for second language learners, for whom issues of attitude are also critical (Chamot & O'Malley, 1987; Jacob & Mattson, 1987; Calderon, 1989). Its chief feature is that it maximizes the strengths of learners by putting them into unthreatening situations in which they pool their resources to achieve a common aim.

In this model, students actively construct and test hypotheses about how the language works while developing communication and learning skills. This process of hypothesis-testing subconsciously feeds their knowledge of all aspects of the language, including registers associated with academic activities, and builds their communicative competence generally. Classrooms in which cooperative learning has been adopted provide students with a rich social environment for the development of this competence (Enright & McCloskey, 1988) and, in the process, develop social skills. In such classrooms, communication about topics, texts, and tasks flows in

several directions: from teacher to student, from student to student, and from student to teacher. These exchanges require students to try out and evaluate their language for personal and academic purposes -- to talk about new concepts, apply them in novel situations, and discover strategies for retaining them. By taking the pressure associated with performance in front of a large group off the student, cooperative activities give students practice without triggering what Krashen calls the affective filter (2.1.1).

Cooperative learning activities apply the basic principles of cooperative task and/or cooperative reward structures in various ways. The major activity types under the Slavin model[4] involve an exchange of information for a common purpose, a pooling of resources. Implicitly, they promote a point of view that stresses the importance of active, task-oriented learning, student autonomy, and collaboration in small groups. They are both cooperative and real -- merely working together to complete a workbook page or discuss a topic aimlessly does not qualify. If, on the other hand, a task has an explicit outcome, interaction is structured, even timed, and task completion requires authentic collaboration, then the activity is consistent with the principles of cooperative learning. As for second language learners, such activities provide plenty of opportunity for practice of the target language in authentic and, in many cases, quite personal contexts.

2.3.4 Task-based Language Learning

Task-based language learning is an integrated approach to second language learning (Long, 1985); like cooperative learning, it requires the use of skills needed for social interaction. This means that classroom activities involve various patterns of interaction, in a variety of skills, and eschew grammar practice and other forms of teacher-centered activity

[4] Jigsaw, Student Teams-Achievement Divisions (STAD), Teams-Games-Tournaments (TGT), Teams Accelerated Individualization (TAI), Cooperative Integrated Reading and Composition (CIRC), Peer and Cross-Age/Cross-Grade Tutoring, Group Investigation, and Cooperative Projects.

(Doughty & Pica, 1986). It differs from cooperative learning, however, because its whole aim is linguistic development.

The task-based instructional approach draws on Krashen's Monitor Model and Input Hypothesis (1981). In task-based activities, students engage in various negotiations of meaning, in groups or pairs, which require them to use the language for a wide range of rhetorical purposes and negotiate meaning in a natural manner (Long, et al., 1976; Doughty & Pica, 1986). In task-based situations, they ask questions, request clarification, confirm a fellow student's understanding, and ask for repetitions and paraphrases. In the content-based ESL classroom, such activities can have an important role. Course content, for example, is frequently integrated into learning tasks that encourage students to work together and develop language and content mastery simultaneously. Thus, the social skills required for effective interaction around school content are an important component of the process, and the language needed to negotiate meaning in small groups is crucial.

2.3.5 The Natural Approach

The Natural Approach was intended as a quasi-theoretical method of adult second-language teaching but is now considered relevant to children as well. Like other approaches, it is indebted to Krashen's Monitor Model (1981) but comprises five approach-specific principles that add up to a generalized focus on meaning rather than form (Terrell, 1983). In short, opportunities for students to acquire meaning while learning the formal properties of a language are at the heart of the approach. As students acquire language, they begin to formulate rules about how the language works and apply them in their efforts to communicate (Krashen, 1981).

In this approach, language acquisition is optimal when samples of the target language are meaningful and interesting and presented in a supportive atmosphere in which students feel free to use them. Thus, teachers following this method ask students to use the target language only when they are ready and free them to do so by minimizing feedback or error-

correction. Activities vary at each level of proficiency. Simple Total Physical Response (2.3.6) activities and naming objects in pictures are useful for students at the pre-production level. Later, when they reach an intermediate stage of fluency, activities such as open-ended sentences and interviews are included as well. Such complex activities provide students with contextualized settings in which meaningful and purposeful use of the language is required. The method, in short, takes a long view of language acquisition, avoids premature production, and proposes activities that vary as students move from level to level.

2.3.6 Total Physical Response

Total Physical Response (TPR) is based on general notions about first language acquisition and, specifically, the premise that understanding spoken language develops before production (Asher, 1969, 1977, 1982). The approach is founded on the idea that second language acquisition can be increased through the use of students' kinesthetic memory systems. Asher recommends that listening comprehension be developed first because it is the one skill which has the greatest potential for transfer to the other skills of speaking, reading, and writing. In TPR, students listen to commands in a foreign language and respond with a physical action (Asher, 1969). The teacher begins with one-word commands and gradually introduces more complex commands that are morphologically and syntactically demanding.

TPR benefits second-language learners in several ways. First, they internalize information about how the target language works before they are required to demonstrate their skill at processing in real time and so assimilate the linguistic code more rapidly (Asher, et al., 1983). Therefore, they experience success early and often feel they can accomplish the task of learning the new language more easily. The pace and novelty of TPR also contribute to students' motivation for learning (Asher, 1977): since production is minimized at the early stages, and students are asked to respond physically to input, they can often operate with heightened input at a high level of accuracy early in the process. The approach is

often used in conjunction with the Natural Approach and similar strategies. TPR activities can be built into content activity sequences to provide a change of pace and a temporary emphasis on particular language problems.

2.3.7 The Cognitive Academic Language Learning Approach

The Cognitive Academic Language Learning Approach (CALLA), developed by Chamot and O'Malley (1987), is a transitional approach for LEP students at the upper elementary and secondary levels. Its intent is to introduce content vocabulary, language structures, and language functions in English by using concepts from content areas (Chamot & O'Malley, 1986). Through instruction around content area subjects, LEP students feel they are learning real subjects and doing real schoolwork, with an obvious effect on motivation.

CALLA's design is derived from second language acquisition and learning strategy theory associated with the work of Anderson (1981, 1983, 1985). In this view, information is stored in two forms, as declarative and procedural knowledge. Language learning requires students to have both explicit and implicit knowledge about the language as a system and requires many opportunities for practice. Thus, language learning is a complex cognitive process that involves the juggling of several storage systems and the constant activation of this knowledge.

The goal of CALLA is to prepare students for the mainstream curriculum, not to duplicate it (Chamot & O'Malley, 1989). CALLA-oriented instruction focuses on one subject at a time. Teachers might, for example, begin with science, add mathematics and social studies, and finally include the language arts. The students in these programs also receive instruction in learning strategies that are appropriate for content-related tasks. Learning language, learning through language, and learning to learn are CALLA's three objectives for these students (Chamot & O'Malley, 1989). The popularity of this approach is attested by the large number of classrooms across the country that have adopted it.

2.4 Curriculum and Materials

As we have seen, second language learners struggle with a new language, but they also struggle with content material -- mathematics, science, and social studies -- and mastery of thinking, study, and social skills. How these skills fit into a curriculum is a matter of great debate. Increasingly, educators incorporate language, thinking and study skills, and content concepts into all curricula, and curricula increasingly reflect the changing needs of language minority students.

Vocabulary drill, grammar exercises, sentence structure exercises, and audiolingual activities were common in ESL courses before 1980. Typically, these activities and materials promoted language learning via carefully sequenced steps -- listening and speaking first, reading and writing later. A major aim was the production of successful social communicators, but that aim was often undercut by a reductionist preoccupation with grammatical bits and pieces[5].

While an audiolingual bias is still evident in many ESL classes, content area subject matter is now included more and more to help students become successful language and content learners. Thus, the notion that the sequencing of discrete skills is paramount has taken a back seat, and whole language and other communicative approaches are now considered more appropriate and effective if communicative competence in academic contexts is the intended outcome. Science, math, and social studies are now considered primary sources of course content, and students approach learning a new language with a stronger sense of purpose and long-term academic objectives in mind. They are considerably less tolerant of grammatical drills when calculus is just around the corner.

While there are still relatively few texts or materials designed specifically for content-ESL programs, there is an abundance of printed and

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[5] For an excellent review of ESL literature before 1985, see A summary of current literature on English as a second language by A.U. Chamot & G. Stewner-Manzanares (1985). Rosslyn, VA: InterAmerica Associates.

visual material, often used in regular ESL instruction, that content-ESL teachers can select for their classes. Commercially published texts and resource materials are available at conferences, and many publishers' catalogues are available to teachers free of charge (Kidd & Marquardson, 1993). Several researchers provide lists of specific texts and materials that would be helpful to ESL and content-ESL teachers (Cook, 1993; Kidd & Marquardson, 1993; Italiano & Rounds, 1993).

Several state governments have adopted textbooks and other materials for ESL classes statewide (Italiano & Rounds, 1993). In addition, state educational agencies have developed curriculum materials which are available to educators designing and implementing instructional programs. For example, a description of the steps Indiana's state educational agency has undertaken to provide instructional services to these students is described in the publication, Procedures for Developing Program Capacity (1989)[6]. Another example is Bilingual Instruction in Michigan. A Position Statement by the State Board of Education (Michigan State Department of Education, 1989), which lists program goals, recommends instructional techniques, and suggests content for the state's bilingual classes.

State departments of education also develop and make available handbooks which describe how to develop instructional programs and include many kinds of information. For example, Maine's Practical Practices for ESL Teachers (1991) describes types of instructional placement, resources for instruction, and instructional approaches. This guide also lists four stages of ESL development and includes sample curriculum charts with descriptions of what students at beginning, intermediate, and advanced levels of proficiency may be expected to learn and do regarding content and linguistic knowledge. Guides such as these are also available from other states for educators to use in setting up and maintaining instructional

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[6] These and other materials are generally not available to the public, but can be obtained directly from state departments of education.

programs.

Information about assessment measures and sample materials for conducting home language surveys are available. In Procedures to Assess Language Proficiency: Resource Manual (1990) the Indiana Department of Education defines assessment and includes suggestions for eliciting spontaneous language and for story retelling tasks. The publication also includes sample language proficiency assessment instruments from a variety of sources, sample dictation and cloze passages, and proficiency guidelines in such areas as accent, grammar, vocabulary, fluency, organization, and meaning. In the Michigan Department of Education Approved Reading and Mathematics Tests for the Evaluation of State and Federal Categorical Programs (1991), educators can find information about approved test titles, the grade level for which they are appropriate and the dates when Michigan's evaluations are to be made. The publication lists 17 language tests that are appropriate for use with limited-English proficient students.

Both state and local educational agencies produce handbooks which include sample activities, games, charts, lesson plans and information about content areas for use in classrooms. An example of a state handbook is the Bilingual Education Handbook: Designing Instruction for LEP Students (1990). Developed by the California Department of Education, the handbook discusses the state's philosophy regarding bilingual education, identifies schools which have successful programs, and describes a content-based, integrated, sequentially organized program. Also included is a checklist for use in identifying effective bilingual programs. An example of a locally prepared handbook is A Guide for Integrating English Language Development in the Content Areas (Grades K-8) (1985), developed by the San Francisco Unified School District. Information relating to each of the grade levels is charted, as well as expectations for each of the four levels of English proficiency (pre-production, early production, speech emergence, and intermediate fluency) for each of three subject areas--

mathematics, social studies, and science. Additionally, related verbs which describe what these students can do are identified for each of the four levels of production. Vocabulary for each of the content areas is also listed. Both of these publications are valuable resources for educators who are interested in designing and implementing an integrated language and content instructional program for limited-English proficient students.

The Hartford Public Schools Content-Based Curriculum, K-6 (CBESL) is another example of a curriculum developed by a local educational agency. This curriculum is a functional, content-oriented curriculum which integrates the learning of English and content material from social studies, science, and mathematics. This content-based curriculum integrates factual information with methods and strategies to promote students' experiential learning and cognitive and language development. The goal of CBESL is to enable LEP students to acquire and develop the oral and literacy skills needed for educational achievement and success. Throughout this curriculum, the role of the teacher is to teach students the English language skills they need to be able to learn certain concepts and skills in the three content areas rather than to teach them the content concepts; thus, it stresses content-based ESL. Specific information describing methods and strategies for using the CBESL curriculum with limited-English proficient students are included in the Teacher Resource Manual.

How to Integrate Language and Content Instruction: A Training Manual (Short, 1991), published by the Center for Applied Linguistics, is an example of curriculum development materials available from other sources. This manual, a revision of an earlier edition, is intended for elementary and secondary ESL/EFL teachers, bilingual teachers, or content area teachers who have limited-English proficient students. This manual describes teaching techniques, methods for adapting materials, lesson plans, and alternative assessment strategies which are based on a whole

education approach to integrating language and content instruction. This approach is recommended for use by both language and content teachers. In this approach, instruction focuses on academic content, language proficiency, and cognitive skills.

The Pre-Algebra Lexicon (Hayden & Cuevas, 1989) is a useful resource for both language and math educators, which identifies and explains the mathematical terms and expressions most commonly found in pre-algebra courses and textbooks. This lexicon can be utilized by language teachers to incorporate content into their instruction to prepare LEP students for the demands of math classes. Math teachers can use the lexicon to focus more closely on the language of mathematics, and, through the suggested strategies, address the language needs of students to increase their achievement in mathematics. Information about mathematical terms, instructional strategies and diagnostic assessment techniques are provided in the text.

Another source of information about curriculum is the CLEAR Annotated Bibliography Series, available from ERIC (Educational Resource Information Center). These annotated bibliographies describe teacher-developed materials and list a number of curriculum guides in the several categories of resource materials available for ESL instructional planning and implementation.

Other research discusses characteristics of effective materials for integrating content and language instruction. Almost anything can be used as an instructional resource; it is the flexibility or adaptability of the materials that is important, especially with written texts. Newspapers, encyclopedias, and books are all accepted resource materials. (Kidd & Marquardson, 1993). General-interest magazines, which often have expository features containing introductions and specific headings, are also good for content-ESL classes (Shih, 1992). In some cases, even government documents have been adapted for limited English speakers (e.g. Short, et al., 1988). However, some of the most effective materials are

visual ones, particularly pictures or visuals in full color, as well as "hands-on" learning tools. Good materials foster involvement and interaction among students in real learning situations. Finally, the more resources a teacher has at her fingertips, the better able she is to adapt materials to different learning contexts (Kidd & Marquardson, 1993).

For secondary and college ESL students in content classes, entire texts are typically more suitable for learning than excerpted material, such as chapters or articles. In addition, close or narrow readings of these texts has proven more effective than short and varied readings. Good materials are geared toward the age or grade level of the students, appealing to their personal interests when possible, relating to their personal experiences, and containing new information (Shih, 1992).

There are many material options available to teachers besides print. Films, videos, slides, audio tapes, compact discs, and computers are all available. Today's technology makes it possible for students to sample commercially prepared sights, sounds, and programs and to create and invent their own. With such technology, students learn via activities that provide a wealth of visual stimuli to stimulate their intuitions about language and communication. Technology combines the verbal and the visual and makes students think, imagine, and relate. Computers, CD-ROMs, videodiscs, voice synthesizers, and telecommunications equipment have all proven to be successful instructional aids. In fact, several software products designed for use with native English speaking students are suitable for LEP students, providing that appropriate adaptations are made by teachers. Content-ESL teachers can develop their own computerized instructional materials with resources such as HyperCard for the Mac and Linkway for the PC (Cook, 1993). Computer networks that enable students in different countries to communicate have become commonplace.

In short, schools use computers and technology to teach such students because they provide opportunities that other resources cannot. Moreover, research suggests that computer-assisted instruction (CAI) dramatically

boosts LEP students over perceptually overwhelming academic and social hurdles (Roberts, 1987). While many educators caution that technology is no panacea, and certainly not an end in itself, schools across the U.S. now take computer technology for granted, and in many schools teachers have been able to harness its power in creative, instructionally useful ways.

2.5 Program Models

To accommodate the language and academic needs of language minority students, a variety of instructional programs have been developed in the last 25 years (Ovando & Collier, 1985). Two issues in the design of these programs are the role of the native language and the means by which students learn content while they acquire English, the mainstream medium of instruction. If the native language is assigned a major role, some type of bilingual education is usually offered. If not, some type of ESL instruction is provided, although even in bilingual programs ESL plays an important role. In fact, the picture is still more complex. Some manner of bilingual instruction is often used with students who know little or no English even if they are enrolled in an ESL programs; and English instruction in bilingual programs usually employs techniques commonly used in ESL programs.

Recently, programs have begun providing integrated language and content instruction, typically through some combination of content-based ESL and sheltered subject matter instruction. Of course, content-language integration also takes place in bilingual programs in languages other than English. Whatever the medium of instruction, the intent is to enable LEP students to acquire academic and language skills commensurate with those of mainstream students. As Bill Honig, former State Superintendent of Instruction for California, has stated, "limited-English-proficient students should have access to the same socially enabling body of knowledge, skills and ways of thinking about the world available from the academic core as English-speaking students..." (Bilingual Education

Handbook, 1990). Theoretically, that "socially enabling body of knowledge, skills and ways of thinking about the world" is assimilable in any language, and any type of program for LEP students is supposed to make sure that they do not fall behind in regular subjects while they are in special programs.

2.5.1 Bilingual Models

While bilingual education has existed since the late 18th century, few programs have been designed around a single model, in part, because of local preferences and the lack of federal regulations prescribing the manner in which programs for LEPs should be designed or implemented. Today, most programs are transitional in nature. Transitional programs often provide first language instruction and support as students acquire enough English to participate in English-medium instruction, while maintenance programs promote development of the first language by providing academic instruction in that language. In addition to these two models, developmental or two-way programs enroll non-native speakers of two target languages to learn each other's languages; they vary in the percentage of instructional time spent in English and the native/second/foreign language (Lindholm, 1987; Christian, in progress). Content-ESL has a role to play in all of these models.

2.5.2 Monolingual (ESL) Models

In some schools, particularly at the elementary level, ESL teachers pull students out of the regular classroom ("pull-out"), while in others ("plug-in") they go into regular classrooms to provide tutoring, team or paired teaching, and the like. Where there are large numbers of students, instruction is also sometimes provided in self-contained classrooms. Content instruction is often integrated in these classes, though not always in a systematic fashion (i.e., in a way that accomplishes language and content objectives simultaneously). At one time, the purpose of many such classes was to expose the students to enough English to get them into mainstream classes as quickly as possible, and its emphases were often

grammar, oral language skills, and social language. The emphasis changed somewhat in the 1980s, particularly with the burgeoning interest in academic language and methods for developing content knowledge and language proficiency simultaneously. Increasingly, the teacher's role in ESL-based programs is to work on academic language, sometimes referred to as CALP (see above), often in a fashion that is consistent with content-ESL priorities.

2.5.3 Content-based ESL and Sheltered Instruction

In the 1980s, researchers reported that students who exited bilingual programs or conventional ESL programs often had trouble in mainstream courses because they lacked academic language skills (Cummins, 1980; Collier, 1989). As a result, ESL classes in bilingual programs and in stand-alone ESL programs now often incorporate academic concepts, language, and skills. There are three main approaches in these programs: (a) content-based language instruction, (b) language-sensitive instruction, and (c) paired or team teaching.

In content-based language instruction, subject matter appropriate to the students' ages and grade levels is combined with the teaching of second language skills (Cantoni-Harvey, 1987). In these classes, ESL teachers structure language instruction around academic content rather than grammar rules or vocabulary lists. They typically choose themes from a single content area and create hyphenated classes (e.g., ESL-math, ESL-science, ESL-algebra) or import concepts, skills, and language required by several content areas (thematic content-based ESL) and collaborate with content area colleagues to plan instruction that complements and/or reinforces regular content instruction (Irujo, 1990). In this framework, students are encouraged to use language to learn something about the topic, not merely learn new labels for content already absorbed. The approach stimulates motivation and achievement among language minority students (Short, 1991), who are otherwise often taught academic cognitive skills and content only after they have attained proficiency in the second language.

Mainstream elementary teachers and content area teachers in the middle and high schools have also developed programs that provide language-sensitive instruction -- sheltered English or sheltered instruction. A variation of immersion education, language-sensitive instruction offers structured instruction in an English modified to the students' levels of proficiency (Mohan, 1986; Northcutt & Watson, 1986; Crandall, 1987). Sometimes, trained ESL teachers make the content comprehensible through pre-reading and pre-listening exercises, but often regular classroom teachers use additional aids to assist students in content areas. Visuals, props, and cooperative activities are examples. Because one goal of this approach is to help students develop learning strategies, such content instruction also focuses on major concepts rather than details.

The third approach, paired or team teaching between an ESL/bilingual teacher and a regular classroom or content area teacher, is common in secondary or tertiary programs in which the content is often complex and specialized (Brinton & Snow, 1988). In this case, ESL/bilingual teachers focus on skills dictated by the content, classroom and content teachers concentrate on subject matter concepts, and they collaborate in instructional planning.

2.5.4 Structured Immersion

One program model that borrows from both bilingual and sheltered instructional features is structured immersion. In this informal, ad hoc approach, students are often encouraged to use their native languages if they are understood by the teacher. While teachers may accept questions and other interventions in these languages, however, they usually respond in an English modified to be comprehensible (Ramirez, 1986). In actual practice, there are many variations on this theme. Since some teachers are more sensitive to the students' linguistic needs than others, there are also structured classrooms in which some teacher-student communication is conducted exclusively in the native language, and there are others in which use of that language is actively discouraged. In such cases, structured

immersion looks a whole lot like the classic "sink-or-swim" situation commonly referred to as submersion.

2.6. Program Administration

The research on effective schools for all students has identified seven common characteristics among effective schools (Edmonds, 1979; Goodlad, 1984). These include a safe and orderly environment; a climate of high expectation for success; instructional leadership (particularly from the school principal); clearly articulated school goals or a mission; an opportunity to learn essential skills; frequent measuring and monitoring of student progress; and a high level of parental involvement. Subsequent research on effective schools for language minority students has reached similar conclusions (Carter & Maestas, 1982; Carter & Chatfield, 1986; Garcia, 1987; Lucas et al., 1989; Tikunoff et al., 1980, 1982, 1991). That is, effective schools are schools that take the needs of all students into account regardless of their national origins.

There are problems, however, with research on effectiveness as it relates to language minority students. In some cases, for example, schools delete information about ESL/bilingual students in their effectiveness data; in others, an effective ESL/bilingual program is a component of what is otherwise an ineffective school. Thus, it is extremely hard to get at this information or to sort it in a way that makes analysis possible. Nonetheless, studies such as Tikunoff et al. (1980), which looked at the features of effective bilingual instruction, have found considerable convergence between such indicators and those identified for the student population as a whole.

Tikunoff's recent study of the significant features of exemplary programs called Special Alternative Instructional Programs (Tikunoff et al., 1991), for example, identified fifty "emerging descriptors" organized into nine clusters. These include responsiveness to local needs; an administrative accommodation to LEP students' needs; the effectiveness of

English language development approaches; the appropriateness of instructional strategies; the monitoring of English language development; the alignment of curriculum with that for English-speaking peers; the effectiveness of program staffing; support for school innovation; and community and parental involvement. Many of these have direct relevance for content-ESL programs; others have implications for the content-ESL classroom.

In the case of the study reported on in this volume, nine variables were selected from the literature as being indicative of effective content-ESL programs. These were arranged across three tiers -- Tier I through Tier III -- in descending order of importance, though they were not ordered within each tier. Then Information Questionnaire data (Information Questionnaires for Administrators and for Teachers) from the 468 participating schools were scanned to determine the presence or absence of these nine variables as defined with reference to items in the questionnaires. Some variables overlap with Tikunoff's "emerging descriptors"; some are more closely related to instructional practices. The analysis is summarized in Chapter Five.

2.7. Learner Assessment and Program Evaluation

Programs or classes serving language minority students are accustomed to diversity; indeed, it is their stock in trade. Students in these programs vary not only in their languages and ethnicities, but also in their native language and English proficiencies, literacy skills, educational experiences, and expectations. Student assessment is therefore a complex and multifaceted aspect of any program. In addition to providing a basis for identification and screening, any comprehensive assessment program must also establish parameters for student placement, student achievement, and program evaluation itself. And it must deal with a variety of possible inputs, outcomes, and sources of confusion.

A number of factors affect test results. Cultural bias, unfamiliar

test formats, and inappropriate test language are examples. Resolution of these potential problems depends on a close alignment of assessment with student needs and capabilities, curricular objectives, and programmatic aims. To obtain detailed information on students, a variety of formal, standardized tests and informal, alternative assessment instruments are currently used (a summary of these appear in Volume II).

There are of course advantages and disadvantages to both forms of assessment. An overarching problem for content-ESL programs is the dearth of commercial, standardized tests that measure cognitive skills, language proficiency, and students' abilities to function in an academic context. As de George (1987, 1988) and others point out, oral English proficiency tests do not measure academic achievement; similarly, standardized academic achievement tests in English confound content knowledge with language proficiency -- students might understand a concept in science or a math problem without being able to understand the language in which the item is written. As a result, many programs prefer to use informal assessments and composite measures to evaluate students; unfortunately, these measures have their own problems of validity and comparability. More to the point, little is known about how to measure a student's competence, not simply in the language of instruction, but in the language of the discipline. Until testing experts get a better fix on how to assess any student's mastery of, say, the discourse of mathematics, we will continue to flounder in confusion and indecision about how well language minority students are doing and how closely programs like content-ESL serve their needs.

Program evaluation is the "systematic collection and analysis of all relevant information necessary to promote the improvement of a curriculum, and assess its effectiveness and efficiency, as well as the participants' attitudes within the context of the particular institutions involved" (Brown, 1989). Since program evaluation is concerned with both students and teachers, formal and informal measures, program assessment and improvement, aims and outcomes, knowledge and performance, it is a complex

process indeed, not least of all because, while it can result in more efficient service delivery, it can also threaten the life of the program. As in the case of all assessment, constructing an appropriate measure is only half the problem. The other half is to interpret test results accurately in the light of the measure's aims and limitations. As this study shows, there are a lot of tests and test types currently in use across the country, but there is a growing need, stemming in part from federal and state efforts to propose educational standards, to measure the linguistic and academic achievement of language minority students more accurately and efficiently. As of 1994, there appears to be little consensus as to how that aim might be achieved.

2.8. Teacher Education

Given the increasing ethnic and linguistic diversity in the school age population of the U.S. (O'Malley, 1983; Richard-Amato & Snow, 1992), expanded pre- and in-service preparation in strategies for integrated language and content instruction is a priority for all teachers, across the board. Two major trends in teacher education, reflective teaching and classroom-based research, are only aspects of a larger view that teaching is a life-long process constantly renewing itself as teachers learn to do the job better for a rapidly diversifying school population.

Changes in philosophy entail changes in practice. Where there was once only training, there is now education. While the nature of teacher education and staff development once seemed settled and predictable, now there is as much innovation and diversity and reform and restructuring as is found elsewhere in the field. Today, changes are taking place in everything from teacher handbooks and teacher education materials, through certification guidelines, to goal formulation itself, as is evident in the work of many professional organizations and the federal effort to set national educational goals for the next century. The field of in-service education is also undergoing change as schools and school districts

implement plans to update all experienced teachers, whatever their specializations, to meet the instructional needs of the many language minority students they now see in their classes. Most recently, partnerships between schools and institutions of higher education (IHEs) have been formed to stimulate rapid improvement across the board in teacher preparation, curriculum development, and materials design. Community-based organizations, increasingly private corporations, have also become involved, and many schools across the country have benefitted from both the subsidy and expertise these companies provide. In short, as the population changes, school systems once thought of as havens for the tenured and hide-bound, have had to rush to keep up with new demands and transforming opportunities.

2.9 Content-ESL and the Study

Content-ESL is many things to many people. In essence, however, its aim is to align the education of LEP students in English with an expanding knowledge of the population and its needs and trends in effective instructional practice. Thus, it encompasses a variety of approaches and initiatives, some of them local, some of them widespread. Since it is a relatively recent phenomenon, there were many questions, in 1991, as to its overall shape and direction. What, for example, were its dimensions in terms of classroom practice? What types of information about local efforts across the country, in all their rich variety, would practitioners find useful? How could content-ESL be accommodated in a variety of programmatic models? How could it be made to fit local conditions? What was its potential role in systemic reform and restructuring? In short, there was a perceived need to find out what educators were doing across the country, to secure baseline data, before assessing the approach's larger purposes and long-term effect.

It is important to bear in mind that, since no previous study of content-ESL had been undertaken, the study team found itself in largely

unmapped territory in fulfilling its charter. While the study's overall structure was dictated in OBEMLA's Request for Proposals (RFP) and its components were described in some detail in the proposal itself, issues such as the necessity of operational definitions, the identification of target programs, study instrument design, agency approval, data gathering and analysis, the selection of additional analyses -- in short, the study's scope -- were resolved on an ad hoc basis as circumstances required in collaboration with OBEMLA personnel and consistent with generally accepted practice. Thus, as in any long-term study, there were inevitable shifts and redirections. These occurred in the light of the study's overall objectives and in response to the funding agency's emerging need for information. Throughout, the study's single aim was to gather data that would answer the questions that had motivated it in the first place.

The first step of course was to distill a shorter list of questions about content-ESL, whose answers would inform subsequent study, from the wealth that had arisen in the beginning. In discussions with the study's advisory committee and OBEMLA personnel, therefore, the study team came up with seventeen. These seventeen study questions thus formed the basis for the study that ensued and provide a framework for the summaries that make up the bulk of this report. In the list that follows, they are organized under four overarching questions.

QUESTION I: What are the salient characteristics that describe the content-ESL practices in the United States and how are the identified programs distributed across these characteristics?

(1) What are the language, ethnic, economic and educational backgrounds of students enrolled in content-ESL programs? (pages 69-76)

(2) What are teacher certification and other requirements? (page 76, Appendix XII)

(3) What is the education/training experience of teachers in such a program? (pages 76-77)

(4) What is the average length of time for which the programs have been in operation? (pages 77-78)

(5) To what extent and for what purposes is the students' native language used? (pages 78-79)

(6) What instructional resources, including curriculum and materials, are used in such programs? (pages 79-83)

(7) Is there collaboration/coordination between the content-ESL teacher and the classroom/content teacher? How does it differ according to subject matter and grade level? What are the differences between elementary and secondary level teacher collaborations? (pages 84-85)

(8) Are there differences in content-ESL approaches, methods, strategies at the elementary and secondary levels? (pages 85-90)

(9) What special modifications are made when using content-ESL instruction with older students? With those with interrupted or no formal schooling? (page 90)

(10) To what extent do teachers revise or modify initial instructional plans during the course of an academic year? On what basis do they make these changes? (page 91)

QUESTION II: How can the effectiveness of one content-ESL practice be compared to others?

(11) What are the measures used to assess student subject matter and academic language proficiency? (pages 91-93)

(12) What level of English language proficiency do LEP students need to develop before receiving content-ESL? Are there subject matter threshold levels? (page 93)

(13) What are the procedures and criteria for identifying LEP students for entry and exit? How is student progress monitored? What follow-up procedures are used? (pages 93-95)

(14) Is there a possibility of comparison with students in more traditional pull-out, non-content-based ESL at both the theoretical and applied levels? (pages 95-96)

QUESTION III: What conditions are correlated with the existence of a content-ESL program?

(15) What local and state laws/court decisions govern the delivery of instructional services? (page 97)

QUESTION IV: What conditions are correlated with the effectiveness of content-ESL programs? [Starred (*) items appear elsewhere on this list.]

*What is the education/training experience of teachers in the program? (3) (pages 76-77)

*What is the length of time the program has been in operation? (4) (pages 77-78)

*To what extent and for what purposes is the students' native language used? (5) (pages 78-79)

(16) What interaction opportunities are there with native English speaking peers? (pages 97-98)

*Are there differences at the elementary and secondary levels? (8) (pages 85-90)

(17) To what extent do content-ESL practices match underlying theories? (pages 114-124)

*What special modifications are made when using content-ESL instruction with older students: With those with interrupted or no formal schooling? (9) (page 90)

*To what extent do teachers revise or modify initial instructional plans during the course of an academic year? On what basis do they make these changes? (10) (page 91)

Chapter Three: Methodology

3.1 Purpose of the Study

As outlined in 2.9 above, the study addressed seventeen questions organized under four larger study questions. Its first aim, therefore, was to answer those questions. Its larger purpose, however, was to gain a general understanding of content-ESL policies and practices across the country and, specifically, to consider how these policies and practices might inform the development of a theory of content-language integration.

3.11 Approach

The approach proposed for answering the study questions revolved around four data collection instruments, each aimed at a smaller, more focused population than the previous one. This approach enabled the study team to refine the target population into smaller, information-rich groups needed for in-depth interviews and field observation. Once the typology was articulated, a "matrix" sampling strategy was employed to ensure that coverage was roughly proportional in terms of the practice characteristics of the larger population.

Beginning with the list of professional organizations and government offices in the proposal, the study team developed a mailing list for the nomination form. Names and addresses from the nomination process combined with Title VII schools formed the pool of recipients of the next mailing, the Identification Questionnaire. Additionally, an independent survey of 750 randomly selected schools across the U.S. enabled the team to estimate the total number of programs extant. Information from the Identification

Questionnaire permitted the team to make persuasive estimates of the extent of content-ESL practice in the United States.

The Identification Questionnaire provided valuable information on the methods, environments, and participants at content-ESL programs across the country. Based on these data, a typology of the practice (i.e., the isolation of key variables) permitted the team to group sites based on the materials used in the programs, their administrative practices, and the like. This typology allowed the team to determine what factors are important and relatively unimportant in effective content-ESL programs.

In addition to developing a typology, an in-depth survey of the practice in general was conducted by means of two Information Questionnaires. The results of this survey allowed the team to determine the **extent** of content-ESL instruction, the salient factors that appeared to predict its success or failure, and the demonstrable value of content-ESL practice as a pedagogical methodology.

Finally, a representative sample of twenty programs was visited for first-hand study.

This phased, focusing approach was the only one possible, given the constraints placed on the study in the RFP. It consistently met with approval in face-to-face conferences and through the formal submission of deliverables, as well as in a variety of less formal communications with OBEMLA personnel throughout the study.

3.2 Program Definition

Content-ESL was defined broadly so as to capture information on the largest possible number of programs, and the definition appeared in all correspondence with potential respondents. A content-ESL program qualified for inclusion in the study if the following criteria applied:

- There are one or more classes in which the integration of ESL and subject matter (content) learning takes place.
- These classes may merely make content instruction in English more comprehensible, or they may aim at systematic integration.

- They may be taught by ESL and/or content teachers with or without the use of a student's primary home language.

- Administratively, they may form part of a larger structure, such as a bilingual or ESL program, or operate autonomously.

In discussions between members of the advisory committee and OBEMLA officials, the school was chosen as the unit of analysis since it is the culture of the school that determines the program's history and structure. In sum, a program was defined as school-based and school-wide, i.e., coterminous with a school. Thus, a large school that contained several programs was deemed to have only one; similarly, programs with a single funding source that were spread over five schools were considered to be five separate programs[7]. For further clarification, a program was defined as consisting of one or more classes in a single school devoted to content instruction in English for students of limited English proficiency, and a class was considered to contain 15 or more students.

3.3 Study Design

Data were collected for this study across five broad tasks. In the first of these, schools with content-ESL programs were located through a nomination process and by review of Title VII-funded programs. In the second, they were surveyed by mail (Identification Questionnaire). In the third, as other tasks were being carried out, a random survey of schools across the country was conducted to estimate the actual number of such programs [i.e., content-ESL programs (see definition above), some of which were components of bilingual education programs, some of which were not]. In the fourth, a sample of programs that had been identified by means of the Identification Questionnaire was surveyed in more detail regarding program practices, teacher training and experience, and the contexts in which content-ESL flourishes (Information Questionnaires for Administrators and for Teachers). In the fifth, site visits to a representative sample of

[7] For these reasons, the terms **program** and **school** are used interchangeably in what follows.

twenty content-ESL programs were conducted to acquire first-hand knowledge of the phenomenon in elaborate detail.

Thus, data for the study were collected by four methods: mailed survey, telephone survey, personal interviews, and classroom observation. In all, four samples were used:

(a) All programs identified under the first broad task above received Identification Questionnaires. Data from the set of **all schools that responded to the Identification Questionnaire** (N=1621) were analyzed (the second task above), and a summary of that descriptive analysis appears in **Appendix VIII.**

(b) Under the third broad task, a random sample of 750 schools was drawn from a database containing all public schools in the U.S. and queried. The estimate of the number of schools that have content-ESL programs was obtained from this set of **schools that responded to the telephone survey** (N=742). This is referred to in the report as "the random survey"; a summary appears on pages 98-99.

(c) Under the fourth task, two random samples of programs responding to the Identification Questionnaire were drawn and queried via the Information Questionnaires (for Administrators and for Teachers). Data from the set of all **schools that returned both Information Questionnaires** (N=468) were analyzed and formed the basis for answers to the seventeen study questions provided in this volume (see Chapter Four).

(d) Finally, under the fifth task, a set of **twenty schools** was identified for field study. The data from these field studies are reported in Volume II; quantitative data drawn from the Post-observation Checklist (POC) are summarized in **Appendix VIII**[8].

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[8] It is possibly worth noting that neither the response sets nor the twenty schools selected for study were formally checked for bias, except for the general distributional analyses (e.g., region, state) that are reported in this volume. A formal analysis would have been problematic since information on school type, poverty levels, urbanicity, etc., was not known until Identification Questionnaire data had been collected, i.e., it was not available on schools in the aggregated database. While proportions relevant to school type and region could be calculated for the random set and compared

Altogether, as indicated, eleven instruments were designed and approved to obtain data for the study:

The Identification Questionnaire was used to gather basic program information about the content-ESL programs contained in the aggregated nominee and Title VII databases.

The Information Questionnaire for Administrators and the Information Questionnaire for Teachers were used to gather more detailed information about program characteristics and instructional practices from a sample of schools that had provided Identification Questionnaire data.

The Post-Observation Checklist (POC) and seven interview protocols were used during school visits.

Copies of all the instruments and corresponding answer sheets are contained in **Appendix IV**. Except for the interview protocols, all of them were created by means of Survey Network software [National Computer Systems (NCS)] and printed on Survey Network scannable forms obtained from NCS[9].

Details on the analysis of the data these instruments were used to obtain are provided in such study documents as the two Clearance Packages for the Office of Management and Budget (OMB) (7.0 and 11.0), the Refined Study Design (10.5), and the Data Analysis Plan Report (14.1). They are also provided in Chapters Three and Four in this report.

The five broad tasks that were undertaken to collect data (locating programs, identifying the universe, estimating the total, querying the universe, and visiting schools) are described in the next five sections (3.4 through 3.8). Data analysis is covered in the concluding section (3.9).

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with corresponding descriptive statistics for schools providing Identification Questionnaire and Information Questionnaire data, the response rates on these instruments were so low that constructing an argument for randomness in the non-response set would be virtually impossible.

[9] The address for National Computer Systems (NCS) is: 2125 4th Street, N.W. Owatonna, MN 55060. The phone number is: 1-800-367-6627.

3.4 Locating Programs

Since no previous study of similar scope had ever been undertaken, no database of content-ESL programs existed. Therefore, one had to be developed. This was accomplished by soliciting nominations of content-ESL programs from ESL professionals, combining nominated programs with Title VII grantees, and purging duplicates[10]. The resulting database contained 2992 potential content-ESL program sites (additional information on database development is contained in **Appendix I**).

3.5 Defining the Universe

Once potential sites of content-ESL programs were identified, they were all surveyed to determine which schools did indeed operate content-ESL programs. All 2992 potential content-ESL program sites were mailed an Identification Questionnaire. The purposes of the survey were to (1) identify ESL programs throughout the nation that conform to this study's definition of a content-ESL program, (2) obtain basic information on those programs, and (3) inform the selection of programs to participate in the subsequent stages of the study.

3.5.1 Identification Questionnaire

The Identification Questionnaire was a three-page survey instrument consisting of 24 items, 23 closed and one open-ended. The items addressed basic program features, including organizational model, content areas, size, longevity, and funding. The Identification Questionnaire also requested basic information about students, teachers, community characteristics, and program delivery. It was addressed to the program's primary contact, who may have been a teacher or a school- or district-based administrator.

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[10] One difficulty with this procedure was that the Title VII database was organized around projects rather than school-based programs since Title VII funds many projects that spill over several schools in a single district or municipality. Therefore, it had to be broken down into schools and extensively verified by telephone since the unit of analysis for this study was the school and/or program.

3.5.2 Procedures

Identification Questionnaires were mailed in early November, 1992 accompanied by a pre-addressed, stamped return envelope and a cover letter on Center for Applied Linguistics letterhead addressed to "Dear Colleague."[11] The letter was written in a collegial style: its informality was important to encourage participation, given the estimated burden on school personnel (cover letters appear in **Appendix V**).

An extensive effort was made to retrieve completed Identification Questionnaires. Hundreds of delinquent programs were contacted by telephone and fax; some information was secured from busy school personnel by telephone and fax. A cut-off date of December 29, 1992 was set in consultation with the study contract program officer. At that time, the data were analyzed and a preliminary report was prepared. Information from this stage of the study was then used to select schools for field study and to conduct the next phase of the study (querying the universe). Additional Identification Questionnaires were returned during succeeding months, these data were entered, and a general reanalysis was conducted. In the end, 1734 were returned, for a response rate of 58 percent, or 87 percent of the 2000 programs anticipated in the proposal.

Most data were received on scannable answer sheets and scanned using Survey Network Scannable forms available from NCS. The data were then stored as Paradox 3.0 Tables, and the responses to open-ended questions were entered by hand. This was the data entry procedure used for all mailed surveys and Post-observation Checklists (POCs).

3.5.3 Data Summary

In all, of the 1734 responses received, 85 reported having no content-ESL program, 13 were duplicates, and 15 were not identifiable because they had been mutilated or otherwise rendered illegible.

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[11] Since the names of program heads or school administrators were not always available, it was not possible to address these letters more personally.

Ultimately, data from 1621 schools were analyzed. Thirty-eight percent of the respondents were nominated programs, and 62 percent were Title VII grant recipients. Their distribution across the fifty states and Puerto Rico is given in Figure I.

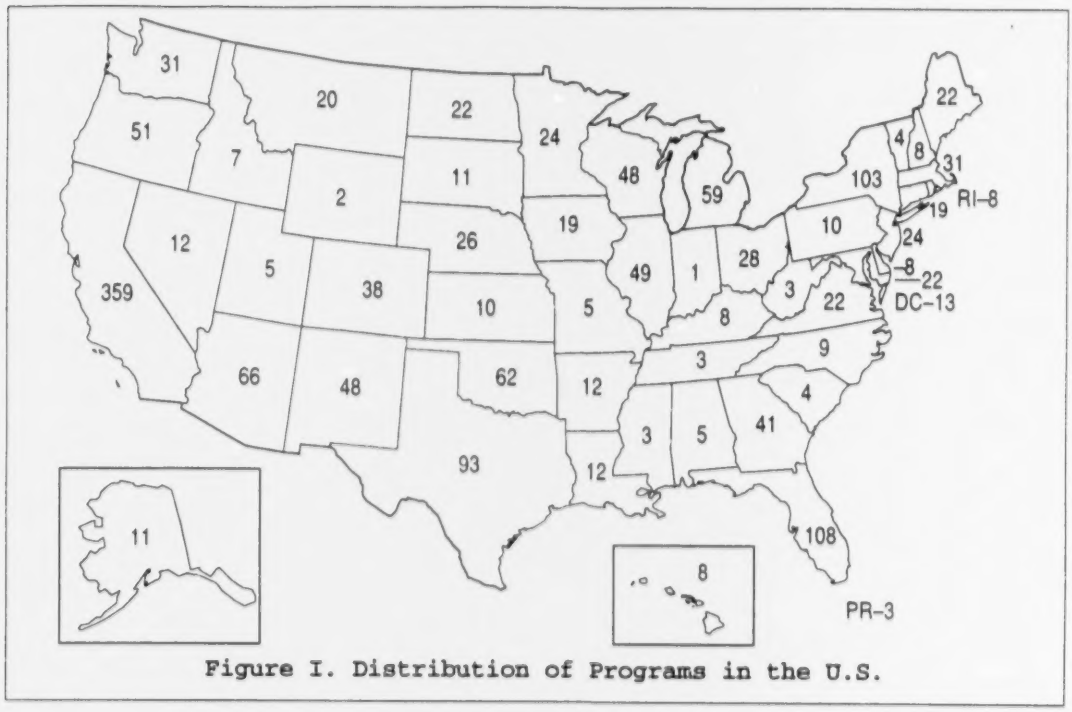

Figure I. Distribution of Programs in the U.S.

The regional distribution of responses is shown in Figure II. This distribution approximates the distribution of LEP students across the country as reported by various sources[12].

[12] For example, the U.S. Department of Education's The condition of bilingual education in the nation (1992).

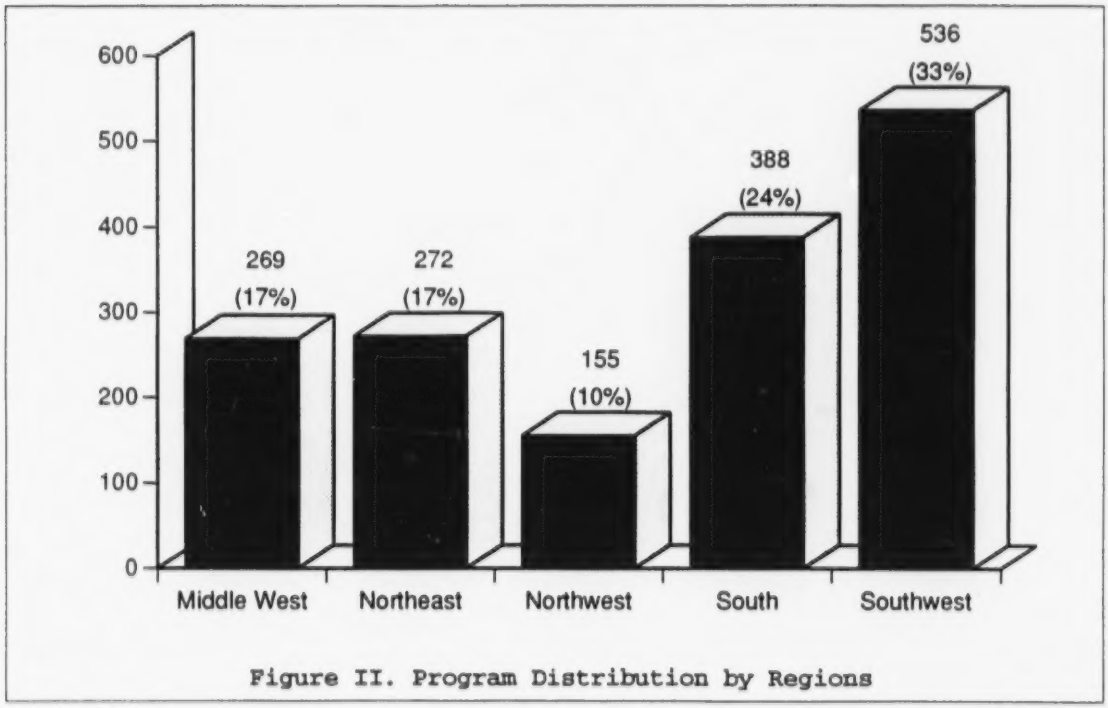

Figure II. Program Distribution by Regions

The programs thus surveyed represent a broad cross-section of programs across the country, i.e., with respect to variables such as socioeconomic status (SES) and the like. Details regarding the determination of SES, type of community, type of school, etc., are contained in **Appendix II.**

In the database, 10 percent (162) are primary schools, 44 percent (712) elementary schools, 18 percent (292) middle schools, and 23 percent (370) high schools. The remainder (85) were classified as unknown or

multiple grade schools. Operational definitions for school types are given in **Appendix II**.

In terms of the size of the community where the schools are located, 26 percent are from large cities, 18 percent from suburbs of large cities, 24 percent from large towns, 19 percent from small towns, and 13 percent from rural areas.

In terms of the students' socioeconomic status, 5 percent of the schools reported having students who came from moderate to high income families, 12 percent from moderate income families, 31 percent from low to moderate income families, and 77 percent from low income families. These percentages sum to more than 100 percent because many schools reported the presence of students from more than a single income group.

3.6 Estimating the Total

In addition to the contracted tasks described, the study team also surveyed public schools across the nation to obtain an estimate of the prevalence of content-ESL programs. In all, a random sample of 750 schools was contacted by telephone to determine whether they contained content-ESL programs as defined in the study.

3.6.1 Selecting the Sample

The goal of the survey was to obtain an estimate of the proportion of schools with these programs. Ninety-five percent confidence limits that the estimate was within 5 percent of the population value was chosen. It was hypothesized that 10 percent or fewer of the schools would have such programs on the basis of an informal survey of population data. Using the 95 percent criterion and the 10 percent estimate, the sample size needed was calculated to be 552. Anticipating a 75 percent response rate, a sample of 736 was therefore required to get 552 responses; that number was rounded up to 750.

A mailing list of 750 schools was purchased from Market Data

Retrieval[13], which maintains an up-to-date database of all public schools in the nation. A systematic sample with a random start was used. Before the sample was drawn, the database was sorted by state and type of school (elementary, middle, high school) within state to enhance the sample's representativeness across state and school type.

3.6.2 Procedures

A telephone interview protocol was used to collect data from school respondents, typically principals, assistant principals, or their aides, and all schools were contacted twice to ensure accuracy. The response rate was 96.6 percent, which is considerably higher than the anticipated response rate. The complete script for these calls appears in **Appendix VI**; the four questions it contains follow.

- What grades are in your school?
- Do you have a content-ESL program at your school?[14]
- If you have a content-ESL program, from which of these grades are the students in the program drawn?
- Are there at least 15 students in the program?

3.6.3 Data Summary

As suggested above, 742 schools responded. Of those, 7 percent (49) were primary schools, 49 percent (417) were elementary schools, 16 percent (119) were middle schools, 17 percent (129) were high schools, and 4 percent (31) contained multiple grades. With respect to regionality, 30 percent were located in the midwest, 19 percent in the northeast, 6 percent in the northwest, 31 percent in the south, and 14 percent in the southwest.

3.7 Querying the Universe

A sample of programs identified through the Identification

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[13] The sample included public schools, pre-K through grade 12; Market Data Retrieval is in Shelton, Connecticut.

[14] If the respondent did not understand the term "content-ESL program," the study definition (see above) was read and/or summarized.

Questionnaire received the Information Questionnaire for Administrators and the Information Questionnaire for Teachers. The purpose of these survey questionnaires was to obtain additional information about content-ESL programs and practices. Only the programs from which both questionnaires were received were analyzed, i.e., 468 programs.

3.7.1 Information Questionnaires for Administrators and for Teachers

The Information Questionnaire for Administrators was a three-page survey instrument consisting of 24 items, 21 closed and three open-ended. The items addressed program model, administrator's role, administrator's experience, program development history, staffing, enrollment, and language and socioeconomic background of the student population. It was addressed to a school administrator. Primary study contacts at each school were asked to complete the questionnaire if they were administrators; otherwise, they were asked to pass the questionnaire along to administrators familiar with their programs.

The Information Questionnaire for Teachers was a seven-page survey instrument consisting of thirteen sections. Section 1 contained four items about the teacher's assignment and experience; Section 2 contained three items about their LEP students' proficiencies in English; Section 3 contained four items about the teacher's LEP students' educational backgrounds. Sections 4 and 5 concerned parent-school interaction and the LEP students' current educational experience, and contained four and seven items respectively. Sections 6 through 10 referred to the teacher's classroom practices in the areas of instructional approaches, classroom activities, modifications in language, and clues or aids. Section 6 consisted of 13 items, section 7 consisted of 19 items, section 8 consisted of 22 items, section 9 had 20 items, and section 10 had 14 items. Section 11 addressed materials, and Sections 12 and 13 pertained to the teacher's training, certification, and experience. Section 11 contained four items, while Sections 12 and 13 contained eight and four, respectively. All but two (12.1 and 12.2) of the items were closed-response. Sections 6 through

10 contained Likert-type items with five options. The questions were phrased to ask how often teachers engaged in various classroom practices, with 1 representing "almost never" and 5 representing "almost always". The questionnaire was addressed to a teacher in the program (see 3.7.3 below).

3.7.2 Sample Selection

A random sample of 750 content-ESL programs was drawn from the database. Later, because of the disappointing response rate from the first sample, a second random sample of 750 was drawn from respondents to the Identification Questionnaire, for a total of 1500 potential respondents. In the end, paired Information Questionnaires were available for 468 programs, for a total response rate of 31 percent, or 62 percent of the 750 programs called for in the proposal.

3.7.3 Procedures

The first mailing of 750 information surveys was conducted in late March 1993. Each school received a package containing an Information Questionnaire for Administrators, an Information Questionnaire for Teachers, answer sheets for both, a pre-addressed, stamped return envelope, and a cover letter addressed to the primary contact. The tone of the letter, like that of the Identification Questionnaire cover letter, was friendly and collegial. To make the selection of the teacher who completed the form an objective process, the contact, who was either an administrator or a teacher ("You may be an ESL teacher, a regular classroom teacher, a teacher certified in one or more subject matter areas, or you may have an exclusively administrative role to play"), was asked to give the Information Questionnaire for Teachers to the teacher in the program whose name appeared last in an alphabetical listing of content-ESL teachers. Because of a delay in the transfer of the Clearance Package to the Office of Management and Budget (OMB), despite its timely submission to OBEMLA, the first mailing went out in late March 1993, when many school personnel were preoccupied with testing and other end-of-year activities.

Throughout the late spring, a telephone campaign was conducted to

track the delinquent Information Questionnaires, and in the process numerous follow-up mailings were undertaken. By the end of September 1993, fewer than 200 complete sets of Information Questionnaires -- both Information Questionnaires for Administrators and Information Questionnaires for Teachers -- had been received. In consultation with OBEMLA, it was decided to send out an additional 750 sets of questionnaires. A week after the second mailing of Information Questionnaires, and before any had been returned, every school was contacted by telephone. The call's purpose was to announce the questionnaires' arrival and urge their return.

By November 5, 1993, fewer than 200 additional Information Questionnaires had been returned, and all non-responding schools were contacted again. Roughly 100 telephone calls per day were made for this purpose, and many schools were also contacted by fax. Of the 1500 programs that received Information Questionnaires, 529 returned Information Questionnaires for Administrators, and 603 returned Information Questionnaires for Teachers. Once these had been sorted to eliminate single returns, checked for missing data, and completed by telephone if necessary, 468 matched sets of Information Questionnaires had been obtained and were analyzed.

3.7.4 Data Summary

In terms of this sample's regional distribution, 19 percent are located in the midwest, 21 percent in the northeast, 8 percent in the northwest, 27 percent in the south, and 25 percent in the southwest. See **Appendix III** for regions by state.

Nine percent (43) are primary schools, 38 percent (178) elementary schools, 21 percent (97) middle schools, and 27 percent (126) high schools. The remainder (14) were classified as unknown or multiple grade.

As for community size, 26 percent are from large cities, 18 percent from suburbs of large cities, 24 percent from large towns, 21 percent from small towns, and 10 percent from rural areas.

In terms of the students' socioeconomic status, 6 percent of the schools reported having students who came from moderate to high income families, 13 percent from moderate income families, 32 percent from low to moderate income families, and 78 percent from low income families[15]. Sixty percent reported that over 75 percent of their students were eligible for free or reduced-cost lunches.

3.8 Visiting Schools

Finally, twenty sites representing a cross-section of such variables as region of the country, type of school (i.e., grade levels), and predominant primary (home) language (PHL) were selected for study. Data were collected by observation and personal interview during these field studies.

3.8.1 Sample Selection

The twenty schools where the field studies were conducted were a judgment (purposive) sample selected so as to include a representation across regions of the country, school levels, dominant primary home languages, and community sizes. Programs were stratified according to the variables given above, and 20 to 25 programs were selected from each region that were suitable for study. The programs were selected by identification number with reference to their characteristics. Study personnel then selected from among the 114 programs this procedure yielded. Ultimately, 16 schools from those identified were chosen; four additional schools were selected because of their exemplary content-ESL programs. Eight of the twenty programs that were isolated for observation in this fashion were replaced with alternate but approximately equivalent programs (see 5.1, this volume). The replacement was necessary for various reasons, among them the reluctance of selected schools to participate because of shifting staffs and the like, recommendations from specialists at institutions of

[15] Percentages sum to more than 100 because some programs reported having students from more than one community size or more than one income level.

higher education (IHEs), state education agencies (SEAs), and Multifunctional Resource Centers (MRCs), program size, travel costs, etc.

Characteristics of the twenty schools for which studies were completed are summarized in **Table I.** As stated, selection was made with reference to such criteria as state, region, grade level, primary (home) languages (PHLs) of the students enrolled, and community type to ensure a distribution roughly comparable to the distribution in the database as a whole with respect to these key variables. We were also asked to include programs of particular interest to OBEMLA such as those serving Native American students and students of Haitian origin. Details are given in 5.1 in this volume. A key for the language abbreviations (to denote the languages reported in the "other" category) following the table is provided in **Appendix XIII.**

Table I.
Characteristics of the Twenty Schools Where Field Reports were Prepared

School	State (Region)	Level	Native Languages	Percent	Community Type
1	CA (Northwest)	MS	Chinese Spanish Other 1	52% 33% 14%	Large urban
2	TX (South)	ES	Spanish Other 2	90% 10%	Large urban
3	CA (Southwest)	ES	Spanish Other 3	72% 28%	Large suburban
4	NM (Southwest)	HS	Spanish Other 4	58% 42%	Large urban
5	NY (Northeast)	HS	Spanish Other 5	47% 53%	Large urban
6	TX (South)	ES	Spanish	100%	Small town
7	WI (Midwest)	ES	Hmong Other 6	95% 5%	Large town
8	SD (Northwest)	ES/MS	Lakota	100%	Rural
9	IL (Midwest)	ES	Chinese Korean Other 7	30% 30% 30%	Small town
10	OR (Northwest)	HS	Spanish Other 8	79% 21%	Large town

11	MD (Northeast)	HS	Spanish Vietnamese Other 9	53% 25% 23%	Mid-size urban
12	MO (Midwest)	HS	Vietnamese Spanish Other 10	59% 30% 11%	Mid-size urban
13	CA (Southwest)	HS	Spanish Other 11	92% 8%	Large town
14	AZ (Southwest)	ES	Navajo Other 12	85% 14%	Small town
15	WA (Northwest)	MS	Spanish	100%	Large town
16	NC (South)	HS	Vietnamese Spanish Other 13	50% 20% 30%	Large urban
17	MI (Midwest)	ES	Arabic Other 14	85% 15%	Large urban
18	MA (Northeast)	MS	Haitian Creole French	100%	Large urban
19	NY (Northeast)	ES	Chinese	100%	Large urban
20	FL (South)	MS	Vietnamese Spanish Other 15	29% 24% 47%	Mid-size urban

1. ABV, AMH, KKN, RUS, TGL, VIE, YUH.
2. KMR, VIE, YUH.
3. ARM, KMR, TGL.
4. ABV, CER, CHN, FRN, JPN, KKN, NAV, THJ, VIE, YUH.
5. ABV, AMH, BLG, BNG, CHN, INZ, KKN, POR, PQL, SOM, SRC, TRF, URD, etc.
6. NOL.
7. JPN, POR, SPN, VIE.
8. JPN, KMR, MZM, RGL, THJ, TRU, UKR, VIE.
9. BNG, CAN, CHN, FRN, GJR, HAT, KMR, NOL, RUS, TGL, THJ, VIE, etc.
10. FRN, KMR, MZM, PRS, RUS.
11. CHN, PRS, TGL, VIE.
12. HOP, NAV.
13. ABV, CHN, GER, GJR, KKN, KMR, NOL, PQL, RUM, RUS, SRC, YUH.
14. ALS, HMG, PQL, URD, YUH.
15. KMR, NOL, PQL, RUS.

3.8.2 Instruments

The Post-observation Checklist (POC) was a ten-page instrument used by observers to guide and record their observations. Items concerned the classroom environment, including the content focus, the type of language accommodation in evidence, the media used, and the number of instructors; activities, including group size, tasks students were asked to perform, students' behavior, and the materials used; and instruction, including variables such as teacher behavior, discourse, content, methodology, and learner behavior. Once the data had been

collected, the checklists were scanned, a database was created, and a triage was undertaken to determine which of the 97 items were the most critical to an understanding of classroom practices[16]. Seventeen items were ultimately selected, and their analysis is summarized in **Appendix VIII**. Considerable material from these observations is also available in the field reports that appear in Volume II.

In addition, seven interview protocols were used for these studies. These protocols included those for (1) the Pre-Observation Interview for Teachers, (2) the Teacher Interview, (3) the Student Interview, (4) the School Board Member Interview, (5) the Parent Interview, (6) the District Administrator Interview, and (7) the School Administrator Interview. They were used to guide the collection of supporting data for the school policies and classroom observations and, ultimately, the preparation of field reports.

3.8.3 Procedures

To conduct these visits, pairs were formed from the CAL study team[17]. At the same time, the schools were contacted to secure permission for the visit and to acquaint school personnel with the time frame and list of classes team members wanted to observe and the interviews they wanted to conduct. For the most part, these arrangements were left to local authorities, although there was considerable guidance from the CAL study team regarding the study's purpose and

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[16] It was not feasible to analyze all POC data because the resulting analysis would have been too voluminous and virtually uninterpretable: for example, analysis of the first 11 items (there are 97) generated 22 pages of statistical output. This problem was anticipated in discussions that took place in 1992, when it was decided to collect as much information as possible in classroom observations and then triage those data at the analysis stage. Since not all POC items bear directly on study questions, the triage was a relatively straightforward matter: study team members were surveyed, and consensus was achieved on which items were particularly relevant to the issues the study was designed to address. In any case, POC data represent only 125 observations conducted at 20 widely dispersed and carefully selected schools; analysis of additional data would not have enhanced the study's generalizability.

[17] Dr. Grace Burkart, Dr. JoAnn (Jodi) Crandall, Ms. Dora Johnson, Dr. Dotti Kauffman, Dr. Joy Kreeft Peyton, Dr. Ken Sheppard (project director), and Ms. Deborah Short.

its overall shape.

A variety of classes representing a range of curricular emphases was observed, from pre-Kindergarten through grade 12. In all, 125 classes were observed across the country. In most, both team members took extensive notes, which they then compared in completing the Post-observation Checklist (POC); in many cases, they filled out the POCs as they were observing the class. There were two potential problems with the latter procedure, however: (a) the POC is a cumbersome form requiring considerable detail, and its sequence does not correspond to the sequence of activities in a classroom event; and (b) in each case, the pair of observers was asked to complete a single form for each observation, i.e., to agree on what happened, to maximize inter-rater reliability. Teachers of these classes were also interviewed beforehand, to gain an understanding of what had been planned for the class and its composition, and afterward, to get a sense of how typical it was and how it fit into a larger sequence. Teachers were also asked about their routine practices, the extent of their involvement with content-ESL classes, and the like.

The study team sometimes divided to conduct other interviews, but in some cases they conducted them jointly, and in a few cases they interviewed groups of two, three, or four students jointly. They took notes throughout, and these notes and the completed POCs formed the basis of the field reports each team prepared after the visit. Most of the information gleaned through interviews was folded into these reports, while relevant data secured by means of the POC were tabulated and summarized (see **Appendix VIII**). All field reports appear in Volume II; all quantitative analyses on survey data are summarized in this volume.

3.9 Data Analysis

3.9.1 Quantitative Analyses

3.9.1.1 Descriptive Statistics

Analysis proceeded in several stages. First, summary statistics were obtained for each item on the questionnaires [see the Data Analysis Report (9.2) for a complete summary of the Identification Questionnaire data analysis; a

summary of all questionnaire data appears in **Appendix VIII**, this volume]. For categorical data, frequencies and proportions were calculated, while for ordered categorical, interval, and ratio data, means and standard deviations were computed. Where items directed the respondent to "indicate all that apply," frequencies and proportions for interesting combinations of responses are reported. Furthermore, all responses to most open-ended questions were examined, organized, and summarized in ways appropriate to the data that were obtained.

Only Information Questionnaire data relevant to the seventeen contracted study questions are discussed in this volume; descriptive summaries of all Information Questionnaire responses appear in **Appendix VIII**. Specifically, relationships among instructional approaches, activities, content modification strategies, language modification strategies, and clues were explored in the next stage of the analysis using correlation coefficients; factor analyses were performed using Principal Factor Method[18]. Several meaningful subscales were derived from the data, scale means and standard deviations were computed, and comparisons were made using these scores in the next stage of analysis, conducting statistical tests. A summary of text responses to items with an "other" option is presented in **Appendix VII**.

3.9.1.2 Inferential Statistics

Statistical tests were conducted to learn whether there were effects of independent program variables on various dependent variables.

The independent variables used in the analysis of Identification Questionnaire and Information Questionnaire data included program size, type of school, teacher training and/or experience, class size, community size, program longevity, and student proficiency levels or requirements. With respect to Information Questionnaire data, independent variables also included type of school at four levels (primary, elementary, middle, and high school) and

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[18] Principal Factor Method is probably the most widely used technique in factor analysis. Its purpose is to identify a number of constructs, fewer than the number of items, that may be used to explain patterns of item correlations.

continuous schooling[19] at four levels (less than 25 percent of students having continuous schooling and 25-49 percent, 50-74 percent, and 75-100 percent having continuous schooling).

For Identification Questionnaire data, the dependent variables for these statistical tests were drawn from Identification Questionnaire items 17, 19, and 20:

(a) Methods of instruction: whole language, cooperative learning, computer-assisted instruction, thematic structure;

(b) Types of materials used: unadapted, basic skills, adapted, program specific, none;

(c) Methods of measuring student progress: teacher-made tests, portfolio assessment, self-evaluation, checklists, other.

For Information Questionnaire data, the dependent variables were teacher role, hours spent in various activities, and the ten classroom practice constructs drawn from Sections 6 through 10 on the Information Questionnaire for Teachers and described above in 3.7.1 and in **Table II**.

Where independent and dependent variables were both categorical, Chi-square tests were used. Where the independent variable was categorical and the dependent variable was continuous, one-way analyses of variance (ANOVAS) were performed. Details about each test that was conducted are given in Chapter Four under the question to which each applies. Additional tests conducted in the analysis of the larger Identification Questionnaire data set are reported in the Final Data Analysis Report (9.2) and elsewhere.

3.9.1.3 Scale Construction

As described 3.7.1, the Information Questionnaire for Teachers contained five sections of Likert-Type items with 5 options indicating frequency of use of various classroom practices. These included such general categories as instructional approaches, classroom activities, modifications in teaching

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[19] The question referred to here is 3.2: "What percentage of the LEP students in your content-ESL classes have been educated continuously since the age of 6 or younger?"

methods, modifications in language, and clues and aids. It was decided that rather than using the item score for each item as a dependent variable in the statistical tests to be conducted, related items would be combined into meaningful scales insofar as that was possible. This decision was made to simplify the presentation and interpretation of results.

Exploratory factor analyses using principal axis factoring were performed on each of the five sections of the Information Questionnaire for Teachers containing Likert-type items to inform the development of scales that were used in analyses[20]. Items with a factor loading less than .3 on a factor (potential scale) were not retained for consideration in the development of subscales. The results of the factor analysis were reviewed by instruction experts, and two tentative scales were formed and then subjected to reliability analyses using Cronbach alpha estimate of internal consistency and modified accordingly. Thus, ten scales were developed. The item total scores for the scales were then used in analyses to find differences in practice among groups of interest such as collaboration and learner-centeredness specified in the study questions. The item total scores for these scales were used as a measure of these dependent variables (collaborative instructional approach, traditional instructional approach, progressive and language-oriented activities, conventional activities, learner-centered modifications, teacher-centered modifications, linguistic-communicative modifications in language, meaning-oriented modifications in language, non-verbal cues, and verbal cues) in subsequent analyses designed to

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[20]In this study, factor analysis was used primarily as an exploratory device to inform the development of scales that were used in analyses to learn whether there were differences between various groups of interest with respect to collaborative v. traditional instructional approaches, learner- v. teacher-centered modifications, and the like. Therefore, the analysis was used for measurement and scale construction, not statistical data analysis. In fact, the number of factors involved and the actual items included in each factor were determined by expert opinion, namely, the judgment of members of the study team. Once tentative sets of items had been selected for inclusion in each scale, reliability estimates (Cronbach alphas: see **Table II**) were calculated for each scale, as indicated, and the scales were modified as necessary. Exploratory factor analysis has few assumptions -- i.e., confirmatory factor analysis, which entails stronger assumptions, was not used. No causal structure was hypothesized, for example. Thus, the analysis was used to guide the creation of additive scales and the selection of items to be used in those scales, nothing more.

identify differences in instructional approaches between elementary and secondary programs.

The scale names, Information Questionnaire for Teachers item numbers, and Cronbach reliability estimates are given here; the implications of this analysis are discussed in section 5.3 in this volume.

Table II.
Subscales Formed from Items on Information Questionnaires for Teachers

Scale Name	Questionnaire Items	Cronbach Alpha
Instructional Approaches		
Collaborative	Cooperative Learning Teacher-student research Discovery/inquiry learning	.67
Traditional Academic	Focus on academic English Stress grammar points Daily assessment	.57
Activities		
Progressive	Language Experience Games, role-play, simulations Visuals other than videos Activities involving little production	.71
Conventional	Textbook series activities Intensive English language activities Systematic pronunciation Extensive reading	.69
Modifications		
Learner-centered	Adapt to students' English language needs Integrate 4 skills Pace to accommodate individual needs Use variety of student groupings Attention to diverse learning styles Use visuals other than video Use contextualized reinforcement of English Variety of tasks during one period Give systematic feedback on student performance Refer to concrete objects Use teachable moments Refer to students' primary cultures	.86
Teacher-centered	Distribute outlines, instruction notes, etc. Write what you say on board or newsprint Organize content into smaller chunks Simplify content Check comprehension frequently Extend exposition Read aloud from text Frequent Q&A	.78
Modifications in Language		

Linguistic-communicative	Speak louder Use less variety in verb tenses Use fewer idioms (untranslatable expressions) Talk around the topic Speak in sentence fragments (telegraphese) Use frequent oral spelling	.81
Meaning-oriented	Use definitions or examples frequently Refer to concrete objects Stress key words in speech Use repetition Paraphrase Write what you say on the board or newsprint	.73
Clues or Aids		
Non-verbal	Gestures Facial expressions Props or objects from the real world (realia) Demonstrations Improvised drawings	.83
Verbal	Authentic print materials Word banks, word charts, and/or word lists Overhead transparencies Bulletin boards Videos or films Audio-cassettes Semantic mapping (netting, clustering, webbing)	.76

Thus, significant clusters of variables, or subscales, were isolated and labelled:

(a) Instructional approaches: collaborative, traditional/academic;

(b) Activities: progressive, conventional;

(c) Modifications: learner-centered, teacher-centered;

(d) Modifications in language: linguistic-communicative, meaning-oriented;

(e) Clues or aids: verbal, non-verbal.

All were measured by their associated subscale scores as indicated in **Table II**. Where the dependent variables were measured at the categorical level, χ^2 tests of independence were performed to locate significant relationships. Where the dependent variables were measured at interval or ratio level, one-way ANOVAS were performed.

3.9.2 Qualitative Analysis

As indicated, all qualitative data analysis is included in Volume II. Among other things, that document contains the twenty field reports that were prepared by the team working in pairs. Although not presented in a conventional

ethnographic format, these reports go beyond the mere summarizing of facts to emphasize those features of each school that make it unique. Thus, for example, the report on a school that has been especially successful at intake (or language-content integration or the creation of a culturally sensitive environment or structural reform or assessment) stresses that feature of the school's program. The reason is simple. As indicated (3.2), the study team and the advisory committee adopted the working assumption that the school (cf. district, classroom, student, program, etc.) would be the unit of analysis because, in their view, the school context and its culture give a content-ESL program its shape and direction. Therefore, it was appropriate to highlight the special contribution of each school in these reports because each had its own orientation and record of achievement.

Chapter Four: Results and Discussion

The results of the study are organized in the following manner. All item-level descriptive statistics from the three questionnaires (Identification Questionnaire, Information Questionnaires for Administrators and for Teachers) and the Post-observation Checklist (POC) are given in **Appendix VIII**. For closed-ended items, either (1) the number and percent responding in each category are provided, or (2) the item mean and standard deviation are given, as appropriate. Results are organized below under the seventeen study questions listed above. The data sources consulted and the items analyzed in answering each question are summarized after each one; in some few cases, the analysis of items provided background information about the topic that is not cited in the response.

4.1 Answers to Study Questions

QUESTION I: What are the salient characteristics that describe the content-ESL practices in the United States and how are the identified programs distributed across these salient characteristics?

(1) What are the language, ethnic, economic and educational backgrounds of students enrolled in content-ESL programs?

Source: Identification Questionnaire items 13, 22; Information Questionnaire for Administrators items D.1, D.2; Information Questionnaire for Teachers items 2.1-2.3, 3.1-3.4, 4.1

Spanish predominated as the primary home language (PHL) of students in content-ESL classes with 81 percent of the programs reporting some Spanish speaking students and 57 percent reporting that over 50 percent of their students

have Spanish as their primary home language. The analogous figures for Vietnamese, Chinese, and Korean are 33 percent and 4 percent, 23 percent and 2 percent, and 18 percent and 1 percent, respectively. Apart from these four, more than 170 languages were represented among the content-ESL students in programs. These languages ranged from Albanian to Yoruba (see **Appendix X**).

In terms of socioeconomic status (SES), family income for the students in these programs was characterized as low for 77 percent of the programs. Only 5 percent said that their students came primarily from moderate to high income homes. Another commonly used indicator of economic background is eligibility for free or reduced-price lunch. Sixty percent of the programs reported that over 75 percent of their content-ESL students were eligible. See **Figure III** below for this information.

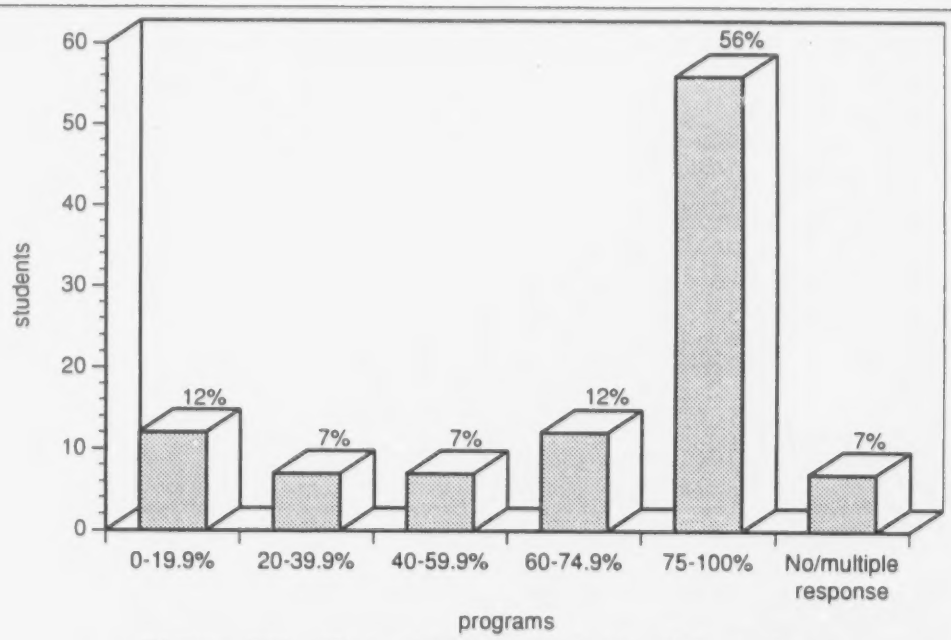

Figure III. What percentage of the LEP students in your content-ESL class(es) is eligible to participate

As for ethnicity, administrators reported students with a wide variety of national origins[21]. Data are given in **Table III** on the percentages and frequencies of schools reporting the participation of students from the twenty-five most often cited groups.

Table III.
Percentages (Frequencies) for 25 Most Frequently Cited Countries of Origin

Country of Origin	Number of Students	Percentage (Frequency)
Mexico	305	19%
Vietnam	150	9%
People's Republic of China	74	5%
Laos	75	5%
United States	73	5%
Korea	69	4%
Cambodia	47	3%
Puerto Rico	48	3%
Russia	47	3%
Colombia	34	2%
Dominican Republic	26	2%
El Salvador	32	2%
Guatemala	20	1%
Haiti	27	2%
India	34	2%
Japan	38	2%
Philippines	35	2%
Taiwan	26	2%
Brazil	17	1%
Cuba	15	1%
Ethiopia	14	1%

[21] Only data on national origin were collected since "ethnicity" is easily misinterpreted, given the proliferation of variant and overlapping definitions of that term. Similarly, data on race were not collected since race is a poorly defined sociological concept.

Germany	14	1%
Nicaragua	16	1%
Poland	15	1%
Thailand	17	1%

As for language competence, 79 percent of the programs said that there was no English proficiency requirement for participation in their content-ESL programs. Teachers were asked how well their students could read and write their native (home) languages (PHLs), how well they could listen comprehendingly to and speak English, and how well they could read and write English. The breakdown for these data is provided in **Table IV** and in **Figure IV** and **Figure V**.

Table IV. Percentage Breakdown of Student Skills in Two Languages

	Percentage of Students Who Can Perform Task				
How well do the majority of the LEP students in your content-ESL classes...	**Very Well**	**Moderately**	**Adequately**	**Poorly**	**Not at all**
...read and write their primary (home) language?	12	17	33	29	12
...listen to and speak English?	7	23	43	27	1
...read and write English?	1	15	31	48	5

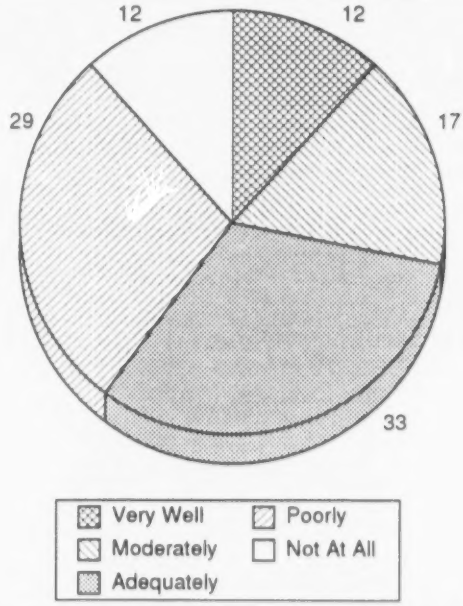

Figure IV. How well do the majority of the LEP students in your content-ESL class(es) read and write their primary (home) language(s)?

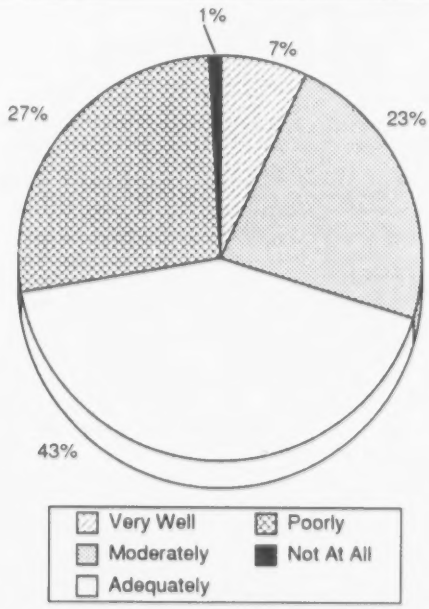

Figure V. How well do the majority of students in your content-ESL class(es) speak and understand spoken English?

As for patterns of schooling, a summary of the teachers' responses is provided in **Table V, Table VI, Table VII,** and **Table VIII,** where the percentages and frequencies are displayed for students in content-ESL classes who had had no prior schooling and continuous education, as well as those for students who had been in migrant education and refugee education. **Table IX** contains information (Information Questionnaire for Teachers) on students who had been educated continuously in the U.S. In this case, teachers were asked to supply information on the students' patterns of prior schooling, and the percentages and frequencies of schools, out of 468, reporting each type of prior schooling is given in percentage intervals.

Table V. What percentage of the LEP students in your content-ESL classes had no prior schooling?

Percentage of content-ESL programs	Percentage of students with no prior schooling
84% (392)	0-20%
6% (26)	21-40%
2% (11)	41-60%
1% (6)	61-80%
1% (18)	81-100%
3% (15)	No response or multiple responses

Table VI. What percentage of the LEP students in your content-ESL classes have been educated continuously since the age of 6 or younger?

Percentage of content-ESL programs	Percentage of LEP students who have had continuous schooling since the age of 6 or younger
15% (70)	0-20%
8% (39)	21-40%
9% (42)	41-60%
13% (62)	61-80%
49% (229)	81-100%
6% (26)	No response or multiple responses

Table VII. What percentage of the LEP students in your content-ESL classes participated in migrant education?

Percentage of content-ESL programs	Percentage of students who have participated in migrant education
79% (370)	0-20%
5% (24)	21-40%
3% (13)	41-60%
3% (16)	61-80%
6% (29)	81-100%
3% (16)	No response or multiple responses

Table VIII. What percentage of the LEP students in your content-ESL classes participated in refugee education?

Percentage of content-ESL programs	Percentage of students who have participated in refugee education
83% (386)	0-20%
5% (23)	21-40%
2% (8)	41-60%
3% (12)	61-80%
3% (13)	81-100%
4% (26)	No response or multiple responses

Table IX. Percentages and Frequencies of Programs Whose Students Have Had Continuous Private or Public Schooling in the United States Reported by Interval

Percentage of Students With Continuous Schooling	Percentage of Programs	Frequency of Programs
Less than 25%	31%	143
25-49%	7%	33
50-74%	10%	47
75-100%	40%	185
Don't know	8%	38

As Table V, Table VII, and Table VIII show, few students in these programs

were associated with three of these patterns (no prior schooling, migrant education, and refugee education). That is, the overwhelming majority of these programs reported that fewer than 20 percent of their students fell into any of these three categories. Nearly half the programs (49 percent) reported that 81 percent or more of their students had been continuously educated. In fact, of those programs, 40 percent claimed that 75 percent or more had been educated continuously in the U.S..

In sum, participants in the programs surveyed were predominantly Spanish speakers from low income families. Of those, most had come from Mexico. Teacher estimates of their proficiency in the native language skewed slightly toward the lower end ("poorly"), as did their estimates of the students' ability to read and write English. Their ability to listen to and speak English was better on the whole than either of these other two estimates of language competence. Finally, most programs reported the participation of few students who had experienced exceptional schooling, e.g., migrant education or refugee education, and many students who had been educated continuously.

(2) What are teacher certification and other requirements?

Source: Information Questionnaire for Teachers items 11.5-11.6. In addition, information has been obtained from all state education agencies.

As **Appendix IX** shows, requirements vary widely from state to state. Because of reform efforts under way across the country, credentialing in many states is in a state of flux. Generally speaking, qualified bilingual teachers are also in short supply. This critical shortage has led some states to explore "alternate routes," or the granting of provisional certification on the basis of an employment or educational history in an allied field. In other cases, minimally qualified teachers have been given a provisional license. On the whole, there is little apparent interest in licensing teachers of content-ESL as such.

(3) What is the education/training experience of teachers in such a program?

Source: Identification Questionnaire item 5; Information Questionnaire for Teachers items 1.4, 11.4, 11.7-11.9, 12.1-12.2, 13.1

The median number of years teachers had taught content-ESL was four. The maximum level of university study was: a) bachelor's degree for 43 percent of the teachers, b) master's degree for 55 percent of the teachers, and c) Ph.D for 2 percent of the teachers.

Sixty-eight percent of the teachers said that they had a credential or endorsement in TESOL (ESL, TESL, or LDS[22]). Thirty-one percent had experience teaching grammar-based ESL.

Information relevant to the teachers' professional preparation or staff development in content-ESL is displayed in **Table X**. In the "other" category, many forms of preparation were given. These included in-house workshops, conference attendance, and university courses (see **Appendix VII**).

Table X. Professional Preparation for Teaching Content-ESL

Type of Training	Percentage of Teachers	Number of Teachers
Undergraduate Courses	31%	144
Graduate Courses	65%	303
TV Courses	5%	21
In-Service Programs	72%	336
Other	11%	52

Note: Percentages sum to more than 100 percent because teachers could indicate more than one type of training.

Identification Questionnaire data indicate that 80 percent of the teachers involved in content-ESL programs at the time of the survey had received specialized pre- or in-service training in content-ESL. Since the questionnaire did not require a detailed response, and there was no control on a respondent's assumptions about the question, this specialized training could include anything from a workshop to a full-fledged degree program.

(4) What is the average length of time in which the programs have been in

[22] "Language Development Specialist" is the term used in California.

operation?

Source: Identification Questionnaire item 8

Of the 468 programs that responded to the Identification Questionnaire, 8 percent had been in operation less than a year, 16 percent between one and two years, 26 percent between three and four years, 11 percent between five and six years, and 37 percent more than six years. Thus, while 50 percent had been in operation fewer than five years, over a third had been up and running for considerably longer.

(5) To what extent and for what purposes is the students' native language used?

Source: Identification Questionnaire items 14, 15, 16; Information Questionnaire for Teachers items 5.6, 9.17, 9.20

Students' primary (home) languages (PHLs) were used for instructional support in 50 percent of the programs[23]. The list of languages used for this purpose appears in **Appendix XI**. Only slightly more than 10 percent of the programs devoted more than 50 percent of class time to instruction in the students' PHLs, however. Information relevant to this question can be found in **Figure VI**.

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[23] The study's focus was a program's classes **in English**. Conceivably, some respondents associated with bilingual programs, roughly two-thirds of the sample, assumed that we were inquiring about language use across the program as a whole. On the other hand, if most of them had made that assumption, one would expect to see an even larger share of class time devoted to instruction in the PHL.

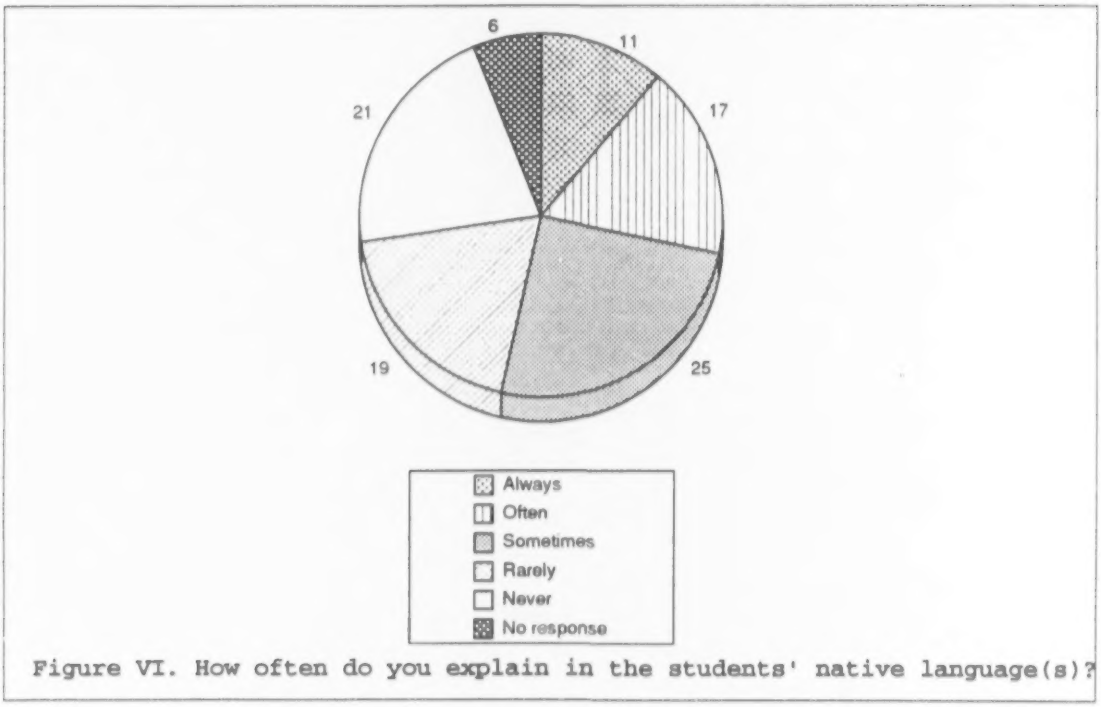

Figure VI. How often do you explain in the students' native language(s)?

According to Identification Questionnaire data, the median number of hours per day for which there was PHL support during academic instruction was one hour. In terms of language modification strategies (Information Questionnaire for Teachers data), 42 percent of the teachers reported that they used the students' native languages only rarely or never, and 30 percent said that they translated a difficult word only rarely or never.

(6) What instructional resources, including curriculum and materials, are used in such programs?

Source: Identification Questionnaire items 18, 19; Information Questionnaire for Administrators items A.6, A.7, Information Questionnaire for Teachers items 6.10, 7.3, 7.4, 7.5, 8.12, 10.3, 10.5, 10.7-10.13, 11.1, 11.2

Information regarding instructional resources, including curriculum and

materials, was provided by both administrators and teachers. Respondents said that 54 percent of their programs had developed curricula specifically for content-ESL on the Identification Questionnaire (out of 1621 schools); that figure was 48 percent for the schools surveyed through the Information Questionnaire for Administrators (out of 468 schools).

With respect to the content areas for which curricula were available, 31 percent had content-ESL science curricula, 28 percent had math curricula, 36 percent had social studies curricula, 30 percent had reading curricula, 37 percent had language arts curricula, 5 percent had industrial arts curricula, and 10 percent had health curricula. Figure VII illustrates the percentages relevant to curriculum as reported on the Information Questionnaire for Administrators.

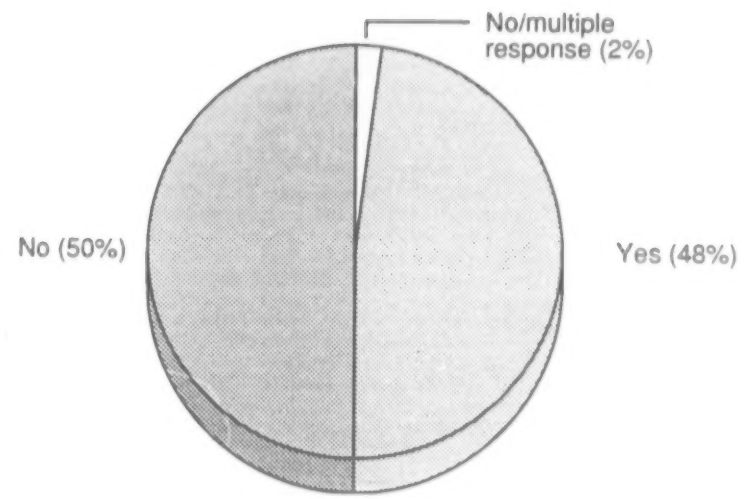

Figure VII. Is there a specific content-ESL curriculum?

Teachers reported the frequency with which they used various resources. This information is summarized below in **Table XI**. **Figure VIII**, **Figure IX**, and **Figure X** represent the information graphically.

Table XI. Teachers' Use of Various Resources Reported in Percentages

	Percentage of Teachers Who Use These Resources				
Resources	**Always**	**Often**	**Sometimes**	**Rarely**	**Never**
CAI	8%	23%	34%	21%	15%
Videos/films	7%	24%	48%	16%	6%
Language laboratory	3%	11%	18%	24%	44%
Outlines, notes, handouts	16%	20%	34%	16%	4%
Realia	31%	15%	17%	2%	0%
Textbooks	13%	34%	34%	14%	4%
Authentic print materials	14%	41%	37%	7%	1%
Word banks, charts, lists	16%	39%	32%	10%	2%
Overhead transparencies	12%	26%	29%	20%	13%
Bulletin boards	29%	34%	28%	6%	3%
Audio cassettes	10%	28%	38%	17%	6%

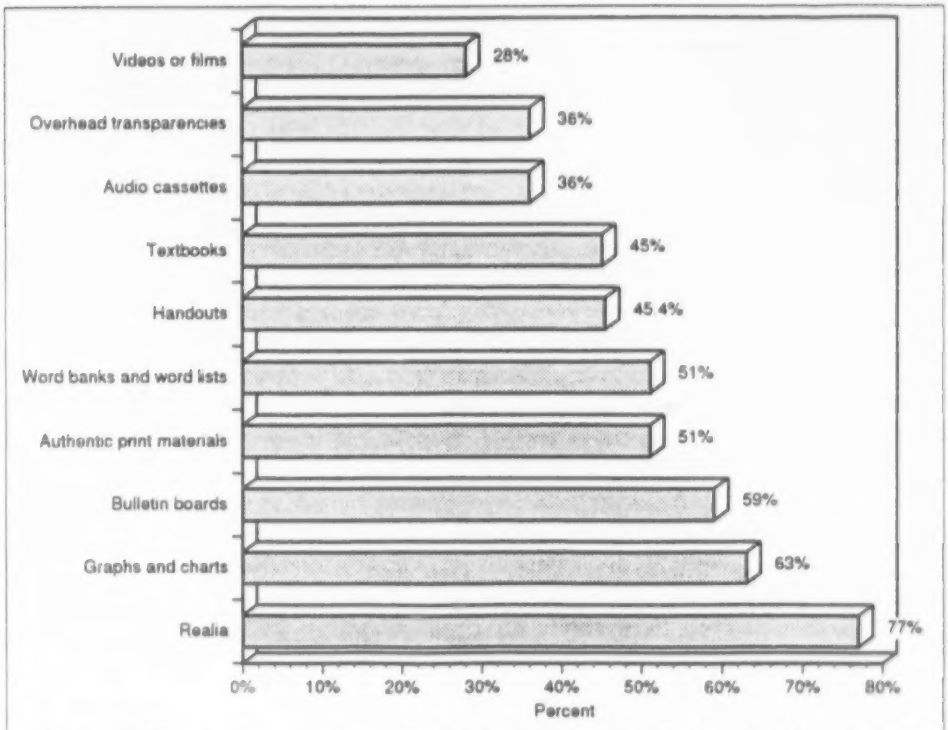

Figure VIII. What percentage of teachers uses the following instructional aide often or always?

[χ^2 tests were conducted with type of school at two levels (elementary and secondary) as the independent variable and response to resource use as the dependent variable. Significant differences were found for use of (1) outlines, notes, and handouts, (2) word banks, word charts, and word lists, and (3) audio cassettes. Secondary schools were more likely to use outlines, notes, and handouts; elementary schools were more likely to use word banks and audio cassettes. (See question (8) below for more on this.)]

The following figures, **Figure IX** and **Figure X**, give the breakdown with reference to the issues of material. While most programs reported using material from the regular classes and/or material calibrated to the students' proficiency levels, the overwhelming majority (90 percent) also reported that they created activities or materials for their students. These data of course do not indicate

the type or quantity of activities and materials produced.

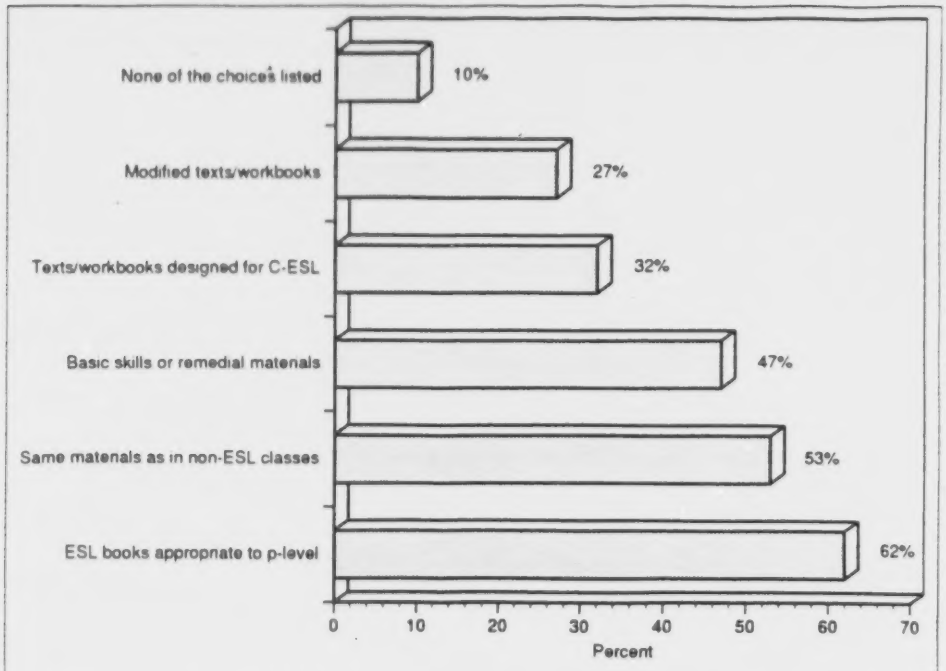

Figure IX. What published material do you use with the LEP students in your content-ESL class(es)?

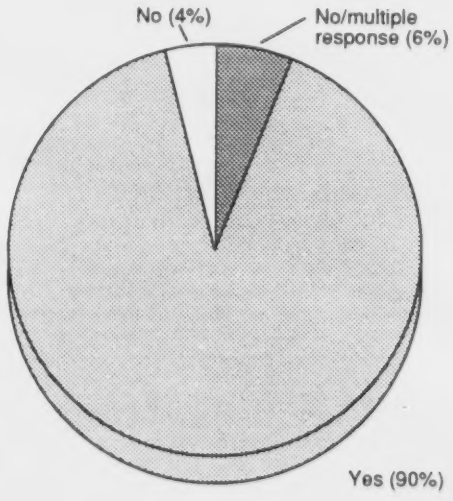

Figure X. Do you create activities or materials for the LEP students in your content-ESL class(es)?

(7) Is there collaboration/coordination between the content-ESL teacher and the classroom/content teacher? How does it differ according to subject matter and grade level? What are the differences between elementary and secondary level teacher collaborations?

Source: Information Questionnaire for Teachers item 1.2 (Additional information about collaboration is available from the field reports in Volume II.)

The content-ESL teacher role was categorized into 8 models. These models are listed below in **Table XII** along with the percentages and frequencies of teachers who identified themselves with each model.

Table XII. Role(s) Assigned Content-ESL Teacher(s): Percentages and Frequencies

Content-ESL Teacher Teaches	Percentage of C-ESL teachers who use this method	Number of C-ESL teachers who use this method
Content, English simultaneously	63%	295
Content, English not simultaneously	16%	73
English, another teaches content, we plan	12%	55
English, another teaches content, we don't plan	14%	64
Content, another teaches English, we plan	3%	15
Content, another teaches English, we don't plan	5%	25
Content, paraprof/aide teaches English	4%	18
Content, sends students out for additional help	3%	13
Other	3%	15

Note: Some teachers checked off more than one category.

Obviously, these percentages sum to more than 100, so there were teachers in the sample who characterized their roles in more than one way. Nonetheless, more of the respondents identified themselves as English teachers (26 percent) than as content teachers (15 percent), consistent with the bias overall in favor of ESL teachers. Similarly, since the largest percentage teach both English and

content, which is common among elementary school teachers, there is evidence of a bias overall in favor of elementary (cf. secondary) programs[24]. There was no significant difference between elementary and secondary levels with respect to these patterns.

(8) Are there differences in content-ESL approaches, methods, strategies at the elementary and secondary levels?

Source: Identification Questionnaire items 1, 17; Information Questionnaire for Teachers items 5.1-5.7, 6.1-6.13, 7.1-7.19, 8.1-8.22, 9.1-9.20, 10.1-10.14, 11.3

As for Information Questionnaire for Teachers data (5.1 through 5.7), seven one-way ANOVAS were performed with type of school at four levels (primary, elementary, middle school, and high school) as the independent variable and, as the dependent variable, the reported hours per day spent by students:

(a) interacting with native English speaking peers,

(b) listening to and speaking English,

(c) reading and writing English,

(d) working on academic tasks such as science or math that require reading and writing in English,

(e) integrating English language skills and academic instruction,

(f) receiving instruction in academic content with PHL support, and

(g) receiving academic content in modified or sheltered English.

A .05 level of significance was used for all statistical tests. Significant differences were found among types of schools with respect to interaction with native English speaking peers ($F_{3,407}$=7.0235, p=.0001); academic tasks requiring English ($F_{3,413}$=5.2161, p=.0015); and instruction with PHL support ($F_{3,414}$=7.2144, p=.0001). Tukey HSD post hoc tests for all possible pairs were conducted to locate the specific groups where the differences existed.

In the case of interaction with English speaking peers, teachers reported

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[24] The term "bias" is of course used here to refer to a sample that, given its non-random character, is likely to contain a disproportionate distribution of data across sub-groups.

that primary and elementary students spent significantly more time than high school students in this activity[25]. High school students spent significantly more time on academic tasks such as math and science that require reading and writing than did elementary school students. Primary schools devoted significantly more time to PHL support than elementary, middle, or high schools.

Secondly, a factor analysis of the Information Questionnaire for Teachers data from Section 6 through Section 10 (teachers' instructional approaches, activities, modifications, modifications in language, and clues and aids) revealed high inter-correlations for ten variable clusters. Once these loadings had been discovered, contrasting labels were applied to each pair under each of these five categories, as indicated in **Table II** (3.9.1.2, this volume). Only one contrast (in the category called "activities"), however, proved to be significant, and that, together with the principal loadings for all five categories, are pictured in **Figure XI** through **Figure XV**. As **Figure XI** shows, for example, 27 percent of the variance is accounted for by a general approach that includes cooperative learning, teacher-student research collaboration, and discovery or inquiry learning. Similarly, with reference to activities (**Figure XII**), there is a clear distinction between what might be described as progressive and more conventional activities: in this case, 21 percent of the variance is accounted for by the first of these two, while 12 percent is accounted for by the second. This suggests that a combination of activities such as jazz chants, games, visuals, and TPR (see Chapter Two) is more popular among the content-ESL teachers participating in the study than a combination that includes textbook activities, drill, pronunciation, and phonics. It further implies that to some extent, therefore, they favor activities that might be characterized as progressive, though this analysis does not suggest that a majority of the teachers queried feel that way.

Loadings for the other three analyses are given in **Figures XIII, XIV**, and

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[25] Needless to say, this and subsequent generalizations stem from information about student behavior reported by teachers, not objective measures.

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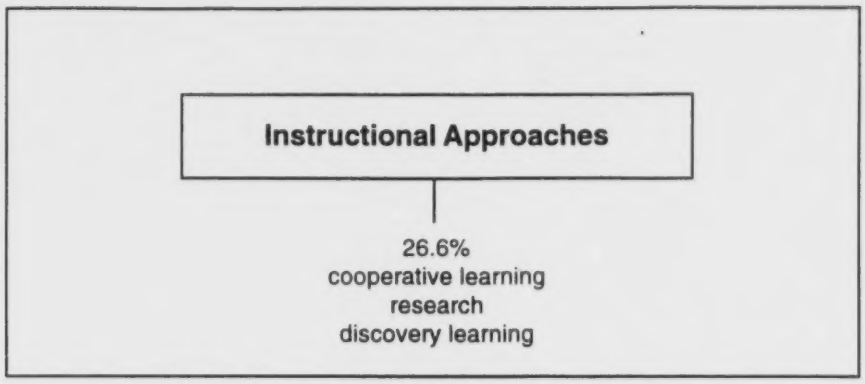

Figure XI. Instructional Approaches

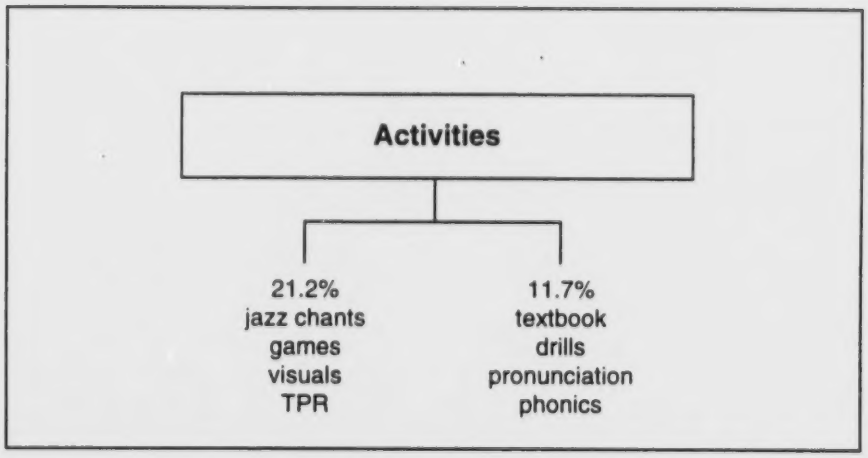

Figure XII. Activities

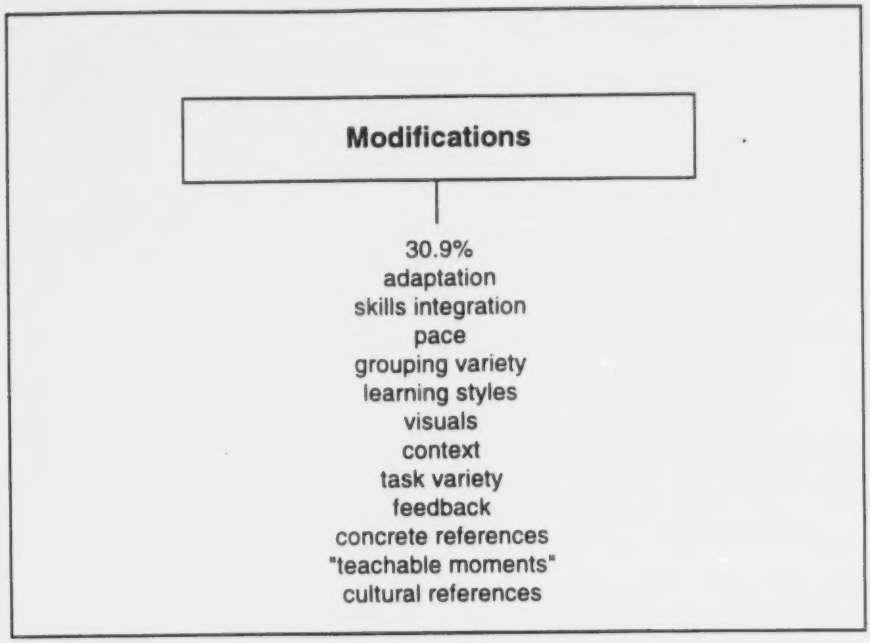

Figure XIII. Modifications

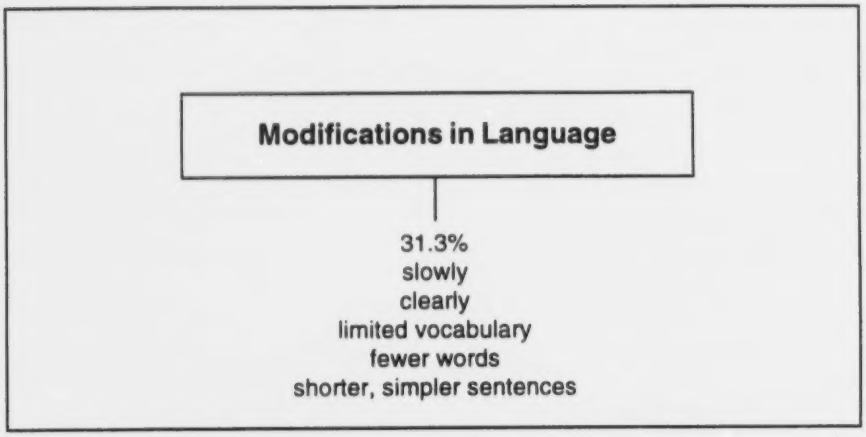

Figure XIV. Modifications in Language

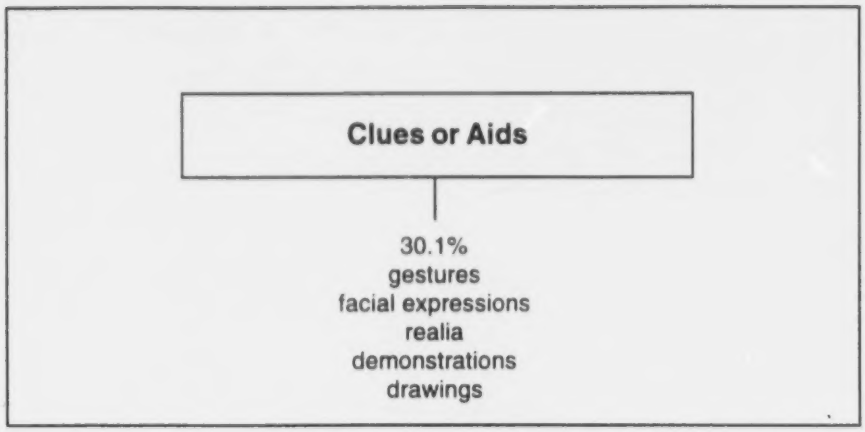

Figure XV. Clues or Aids

These constructs were then used to assess relations between school type and instructional practices. Ten one-way ANOVAS were conducted with type of school at four levels, as the independent variable, and the ten constructs, measured by composite subscale scores, as dependent variables.

Significant differences were found for "progressive and language-oriented activities" ($F_{3,397}$=4.8604 p=.0025), "learner-centered modifications" ($F_{3,367}$=3.0615 p=.0282), and "verbal clues or aids" ($F_{3,385}$=3.1591 p=.0247). Tukey HSD tests revealed that elementary teachers were significantly more likely to use "progressive and language-oriented activities" than high school teachers, that primary school teachers were significantly more likely to use "learner-centered modifications" than high school teachers, and that high school teachers were also significantly more likely to use "verbal cues and aids" than elementary teachers.

Finally, as indicated in question (6) above, significant differences emerged between secondary and elementary school teachers in terms of the resources each group favored, with secondary teachers predictably favoring

outlines, notes, and handouts and elementary teachers, wordbanks and audio cassettes. As indicated in question (7) above, there were no significant differences between secondary and elementary teachers with respect to their roles or collaborative patterns.

(9) What special modifications are made when using content-ESL instruction with older students? With those with interrupted or no formal schooling?

If "older students" refers to students who are older than most students in the same grade, information relevant to that issue is not readily available from study instruments[26]. Of course, if "older" simply contrasts with "younger," there is an implicit comparison in the analyses comparing elementary and secondary students above. There is also an implicit comparison of older and younger students in the second question under question (9). Instructional practices at schools reporting high numbers of students who had no prior schooling or experienced interrupted schooling might differ from those at schools with low numbers of such students. On the assumption that classes at the former contain more older students, that difference might therefore address the issue of age. For that reason, only the analysis of data relevant to continuous schooling is discussed below.

Source: Information Questionnaire for Teachers items 3.1, 3.2, 4.1, 5.1-5.7, 6.1-6.13, 7.1-7.19, 8.1-8.22, 9.1-9.20, 10.1-10.14, 11.1-11.3

To explore modifications made with students with interrupted schooling, six one-way ANOVAS were computed with percentage of content-ESL students in continuous private or public schooling at four levels (0-25 percent, 25-49 percent, 50-74 percent, and 75-100 percent) as the independent variable and the ten constructs in **Table II** (3.9.1.3 above) as the dependent variables. No significant differences were found. Thus, our assumption is that no special modifications were made for older students if older students are defined as those whose schooling had not been continuous.

This, however, as indicated, is an indirect measure of the difference in

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[26] Clarification was sought from OBEMLA on the intention of this question.

treatments accorded older and younger students. If "older students" were operationally defined, and the relevant data were available, a more precise comparison could be made.

(10) To what extent do teachers revise or modify initial instructional plans during the course of an academic year? On what basis do they make these changes?

An answer to the question would require definition of three key terms, "modify," "initial," and "instructional plans." Lesson planning varies widely from school to school. Some schools prescribe curricula, even syllabi, while others leave lesson planning to the teacher. Some teachers write lesson plans, while others work from an outline or improvise. The assumption in this question is that teachers start out the year with a set of "initial instructional plans" of some sort and then change course or alter these plans as the need arises. Many teachers don't do this because they don't have the opportunity to re-use plans, if they have plans at all, and they may never revise them for the following year, even if they see the need for an alternative approach. It would be better to devise some way of getting at the underlying strategies or assumptions about students that influence teaching and then, in a longitudinal study of randomly selected teachers, look at how those change by means of observation and interviews. It was not possible, however, to follow a cohort of teachers over the course of a year to understand these modifications at this level of detail within the scope of this study.

QUESTION II: How can the effectiveness of one content-ESL practice be compared to others?

(11) What are the measures used to assess student subject matter and academic language proficiency?

Source: Identification Questionnaire item 20; Information Questionnaire for Administrators item A.9, Information Questionnaire for Teachers item 11.3 (No distinction is made between subject matter and academic language proficiency in survey items relevant to assessment.)

Both teachers and administrators were asked to indicate which items on a

list of assessment methods they used to evaluate the progress of LEP students in content-ESL classes. Their responses are summarized in Table XIII and Table XIV.

Table XIII. Percentages of Programs Using Each Measure to Assess Student Progress (as Reported by Teachers)

Measure (Teacher Response)	Percentage of Programs Using Measure	Number of Programs Using Measure
Informal questioning	81%	381
Teacher-made paper and pencil tests	69%	321
Students projects	67%	313
Quizzes	58%	273
Journals	55%	255
Compositions	52%	245
Simulations/or oral projects	51%	237
Standardized language proficiency tests	49%	229
Portfolios	46%	216
Checklists	44%	204
Cooperative assessment	42%	194
Standardized reading achievement tests	40%	185
Standardized achievement tests	38%	176
Student self-evaluation	23%	106
Attendance tallies	19%	87
No formal assessment	6%	29
Other	5%	22

Note: Percentages sum to more than 100 because respondents could select more than one option.

Table XIV. Percentages of Programs Using Measures to Assess Student Progress (as Reported by Administrators)

Measure (Administrators' Responses)	Percentage of Programs Using Measure	Number of Programs Using Measure
Teacher-made tests and quizzes	69%	325
Grades	62%	290
Standardized language tests	62%	292
Standardized content tests	57%	265
Writing samples	49%	230
Portfolios	39%	184

Student projects	38%	177
Oral reports	34%	159
Checklists	24%	112
Cooperative assessment	17%	79
Attendance tallies	17%	79
Student self-evaluation	12%	55
No formal assessment	9%	27

Note: Percentages sum to more than 100 because respondents could select more than one option.

Differences between these two sets of responses reflect differences in assessment at the course and program levels. Among teachers, the more frequent responses (over 50 percent) include such class-related activities as informal questioning, teacher-made tests, projects, quizzes, journals, compositions, and oral reports. These then become the basis for the assignment of grades. Among administrators, the more frequently reported activities include teacher-made tests, standardized tests, and grades, which in turn reflect all of the class-related activities listed above. Different measures for different purposes. The overall popularity of portfolio assessment is striking.

(12) What level of English language proficiency do LEP students need to develop before receiving content-ESL? Are there subject matter threshold levels?

Source: Identification Questionnaire items 10, 11, 12; Information Questionnaire for Teachers items 2.1-2.3

The issue of English language proficiency requirements is addressed above in question (1)[27]. In short, few programs report a criterion proficiency level for participation[28]. The range and types of assessment used for placement and

[27] "What are the language, ethnic, economic and educational backgrounds of students enrolled in content-ESL programs?"

[28] One reason may be that, in many programs, particularly on the elementary levels, all LEP students are unsystematically put into content-ESL classes. Indeed, in many elementary programs, content-ESL practices appear to vary little from non-content-ESL practices, and content-ESL varies little from structured immersion-cum-paraprofessional support in the form of counseling, interpretation, and/or tutoring. Additional study would be needed to go beyond this level of generality.

other purposes in the visited programs are described in some detail in Volume II (see Chapters Three and Appendix H).

(13) What are the procedures and criteria for identifying LEP students for entry and exit? How is student progress monitored? What follow-up procedures are used?

Source: Information Questionnaire for Administrators item A.5 reports who is most responsible for entry and/or exit; Identification Questionnaire items 10, 11, 12 relate to L2 proficiency level requirements. Identification Questionnaire item 20, Information Questionnaire for Administrators item A.9, Information Questionnaire for Teachers items 11.3 relate to monitoring progress.

Administrators were asked who was most responsible for making decisions about LEP student admission to, placement in, and exit from content-ESL classes. Their responses are summarized in **Table XV.**

Table XV. Personnel Who Make Decisions about Student Admission, Placement, and Exit Reported in Percentages

Personnel	Percentage of Programs Reporting	Number of Programs Reporting
Individual teacher	23%	107
Teams of teachers	27%	125
Administrators	11%	50
Teachers and administrators	46%	213
Guidance counselors	12%	55
Community members/parents	9%	42
Other	13%	62

Note: Percentages sum to more than 100 because some programs selected more than one option.

As these data reveal, teachers and administrators indicated that they made most decisions relevant to these programmatic aspects, most often in collaboration. The finding is consistent with an impression formed during school visits. In many schools, teachers were working closely with school officials to

recruit, process, assess, schedule, and mainstream students. On the whole, however, teachers had considerably more knowledge of the students -- their languages, their backgrounds, and their needs -- than many school administrators.

Information regarding the monitoring of student progress is given above under question (11).

(14) Is there a possibility of comparison with students in more traditional pull-out, non-content-based ESL at both the theoretical and applied levels?

Source: Identification Questionnaire item 20; Information Questionnaire for Administrators item A.9; Information Questionnaire for Teachers items 11.3, 13.1-13.4

Within-school comparisons would be possible only if both content-ESL and conventional ESL instruction were available, extraneous variables could be controlled across the groups, and comparable measures were used with both. That kind of systematic testing is beyond the scope of this study, and conditions were not met at the schools studied to make that kind of testing possible. Across-program comparisons would be immeasurably more difficult for the obvious reasons: there is a greater risk of contaminating social variables in widely separated programs than in a single school, i.e., generalizability comes at a high price. In short, a whole study could (and should) be conducted to decide what indicators of effectiveness to use and then to create the conditions for the independent testing of students whose treatments are carefully differentiated.

As for study data, three sources of information can be used to formulate a preliminary answer to this question: analysis of the Information Questionnaire data relevant to a teacher's informed opinion about the relative effectiveness of content-ESL and "conventional grammar-based classes" (Information Questionnaire for Teachers, Section 13), field report data (Volume II), and a tier analysis (5.4.1, this volume). Data from the first of these is summarized here.

Teachers were asked whether they had ever taught grammar-based ESL. One hundred and forty-four teachers said they had. Then, those teachers who had taught grammar-based ESL were asked three questions regarding the progress of their students in content-ESL classes relative to the progress of students in

conventional grammar-based classes. Seventy-nine percent said that their students in content-ESL classes learned English listening, speaking, reading, and writing skills faster than in conventional grammar-based classes. Eighty-nine percent said that their students had improved their academic achievement in content areas faster than their students in conventional grammar-based classes. Needless to say, these are only indirect measures of program effectiveness, but absent evaluative data, e.g., scores on comparable measures administered under controlled circumstances, no other assessment is possible.

QUESTION III: What conditions are correlated with the existence of a content-ESL program?

Source: Information Questionnaire for Administrators item A.4

Administrators were asked about the conditions that had motivated the creation of content-ESL classes; their responses are summarized in **Table XVI**. As interviews conducted during school visits also indicated, many districts had experienced a rapid increase in the last few years in the number of students whose English language proficiency was limited, and this fact appears to be the primary reason for the establishment of these programs. Allied causes were previously low achievement rates among these students in content courses and the consequent desire to mainstream them as soon as possible. Additional factors such as legal mandates had played a role in many districts because the population had been historically underserved or because districts were required under mandates stemming from the Lau Decision to provide compensatory instruction. There are few surprises here given recent demographic trends and the efforts of schools to accommodate them.

Table XVI. Impetus for Creating Content-ESL Classes

Reason for Creating C-ESL Classes	Percentage of Programs Starting C-ESL For That Reason	Number of Programs Starting C-ESL For That Reason
Rapid influx of LEP students	62%	289
High drop-out rates among LEP students	18%	85
Low achievement in academic content courses	49%	230
Professional desire to find more effective courses	35%	163

High cost of ESL classes	3%	13
Desire to integrate students as rapidly as possible	47%	220
Success of such classes in other districts	12%	57
Legal mandate	28%	131
Other	4%	18

Note: Percents sum to more than 100 percent because respondents could select more than one option.

(15) What local and state laws/court decisions govern the delivery of instructional services?

Thirty-six percent of the states (18) report that some form of ESL and bilingual education is mandated; 16 percent (8) report that ESL only is mandated; and 2 percent (1) report that bilingual education only is mandated. Of the rest, 26 percent (13) indicate that neither form of instruction is mandated. One jurisdiction (the District of Columbia) says that plans are under way, one state (Florida) requires ESL instruction under a 1990 consent decree, and one state (Nevada) will promulgate a bilingual endorsement in 1996. Sixteen percent (8) did not make this information available to the study; nor was it obtainable from NABE or TESOL. Only the 50 states and the District of Columbia were contacted. A complete summary appears in **Appendix XII**.

QUESTION IV: What conditions are correlated with the effectiveness of content-ESL programs? [See also questions (3), (4), (5), (8), (9), and (10) above.]

(16) What interaction opportunities are there with native English speaking peers?

Source: Information Questionnaire for Teachers items 4.4, 5.1

The data are summarized in **Table XVII**. Most programs reported that their students had opportunities for interaction in English with friends and mentors, as well as via organized activities. As the table reveals, other interaction types occurred less often.

Table XVII. Percentages of Programs Reporting Opportunities for Interaction with Native English Speakers by Interaction Type

Interaction Type	Percentage of Programs Using This Interaction	Number of Programs Using This Interaction
Interaction in C-ESL classes	41%	191
Interaction through organized activities	59%	277
Conversations with friends/mentors	53%	247
Classroom visits by native English speakers from the community	28%	130
Field trips involving interaction	43%	200
Other	22%	102

(17) To what extent do content-ESL practices match underlying theories?

Theoretical principles cited in the literature review were identified. Factor analyses on data from Information Questionnaire for Teachers Sections 6 through 10 revealed biases that converge with and diverge from these principles (see Table II). Finally, nine principles were used to conduct the tier analysis described in 5.4.1 (this volume). Chapter Five contains a thorough discussion of these issues.

4.2 Estimating the Total

The telephone survey was carefully done -- i.e., the inquiry was scripted, terms were defined carefully, all schools were contacted at least twice. Therefore, the response rate was virtually 100 percent (i.e., 96.6%). Based on the data, it is estimated that 15.4 percent (plus or minus 3 percent) of the public schools in the U.S. have content-ESL programs. With respect to secondary schools, 13 percent (plus or minus 5 percent) have such programs, while 16 percent (plus or minus 3 percent) of the elementary schools have them[29]. In actual numbers, that would compute to approximately 12,848 schools at all levels.

[29] See **Appendix II** for operational definitions of school types. Only two categories are reported on here to provide a clear-cut contrast.

While this statistical estimate is larger than the number of schools in the study database, the survey, like the study as a whole, employed a broad definition of content-ESL to capture as many programs at all levels as possible. In other words, that definition encompassed every type of program possible from pre-Kindergarten through grade 12. While it is unlikely that all of the programs in the study database of 2992, or 23 percent of the estimated total, actually engage in what is often referred to as "systematic language and content integration," nevertheless, it is possible that many of these schools mainstream LEP students without modifying mainstream instruction significantly to accommodate their needs. Thus, they might qualify under the study's broad definition but still lack a substantive commitment to systematic integration, curricular revision, staff development, or instructional innovation. By comparison, most of those in the study database have been in operation for some time -- have, for example, been deemed worthy of support under Title VII -- and, as the data show, have gone a considerable distance toward the creation of coherent and effective programs for the population. Therefore, they may represent an above-average sample of the programs in operation across the country.

Chapter Five: Implications and Recommendations

As previously discussed, the ethnic and linguistic picture of U.S. education is changing dramatically. Nowhere is this more evident than in the programs reported on here. Content-ESL -- an effort to expedite an LEP student's assimilation into English-medium education with all of its attendant opportunities by working on English and the regular curriculum simultaneously -- is rapidly taking root. Its attractiveness stems in part from the growing consciousness that new stresses, such as immigration, on the system require new responses and in part from a desire to achieve higher retention rates at minimal cost. Whatever its motivation, the approach has spread from California to Virginia and today can be found in every corner of the nation, from inner-city schools in the rustbelt to reservation schools in the far southwest, from the Texas Panhandle to Michigan's Upper Peninsula. While it represents a genuine innovation in the way we deliver services, its success ultimately will depend on our being able to integrate the two learning processes subtly and sensibly: the science teacher incidentally working on the language of her classroom and the language teacher adopting science as a context for her work on the language. That is, it will depend on our being able to develop pedagogical protocols -- curricula, materials, activities -- that require everyone, teacher and student alike, to pay persistent attention to the content of language and the language of content until mastery is achieved. As with all innovations, these goals will not be met overnight, and they certainly have not yet been attained, but there are plenty of reasons to be

optimistic.

In the following discussion, the key findings outlined above are highlighted and their general implications spelled out. There is also an account of a **tier analysis**, whose purpose is to organize those variables identified in the literature that define effective programs into three tiers and specify how the programs for which we have data are distributed across those tiers. This analysis offers insight into the relationship between "theory" and practice, between what theorists expect and what is actually available in the system as a whole. Finally, that analysis leads into a discussion of how program designers might use study data analyses to make decisions about program models, to a **decision matrix**. In sum, that discussion considers the relationship between, on the one hand, environmental factors such as the size of a program, the grades represented, the socio-geographic definition of the community, and the native languages present and, on the other, program models -- transitional bilingual, sheltered English, etc. -- that schools have opted for. As is always the case in decentralized systems like the U.S. system, however, local conditions and funding sources often override factors identified in large-scale studies and force a decision on quasi-political rather than educational grounds[30]. Finally, recommendations stemming from the study as a whole are provided.

5.1 Study Limitations

All studies have limitations, and this one is no exception. Even in the most comprehensive surveys of instructional programs, issues of selectivity, comparability, and generalizability always surface. This study's lack of randomness, for example, precludes extrapolation from these findings to the larger population of programs across the U.S. For that

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[30] In any event, the lack of matrix-specific data in the study, whose purpose lies elsewhere (see Chapter One), constrains the writing of prescriptions for the creation of programs to meet local needs.

reason and others, interpretation must proceed with caution.

In the first place, in order to capture information on as many programs as possible, a broad definition of content-ESL was used. As indicated above, under that definition, virtually any school that offered one or more classes in which content instruction was provided in English to LEP students qualified for inclusion. Inevitably, schools that had not yet developed a cohesive program, as well as schools that had completely reformed and restructured themselves around this instructional approach, were included without distinction. Since, however, the study was designed to look at effective rather than exemplary programs, and specifically to define the range of practices in these schools, inclusiveness, though not indiscriminate inclusiveness, was inevitable.

Secondly, there are restrictions on the generalizability of the study's findings. With the exception of the random sample of schools that was used for the telephone survey, none was randomly chosen: they had either been nominated or enrolled under Title VII. Therefore, no parametric statistics are possible with these data, and it is not possible to generalize from the practices in these schools to all the schools that have content-ESL programs. While the database contains an estimated 23 percent of all schools with content-ESL programs in the country, it is also likely that these programs constitute an above-average sample -- above average in terms of longevity, instructional planning, institutional commitment, etc. For example, most have engaged in enough planning, self-evaluation, and capacity building to qualify for Title VII funds. Furthermore, nominees (i.e., those that had been recommended by professional organizations) would not have participated if professional educators were doubtful of the quality of the instructional services they provided.

In any case, program characteristics that emerge in the data are artifacts of the sample, which represents a selective sub-set of all programs. Most, for example, are elementary rather than secondary

programs; the picture these data reveal, therefore, is skewed in the direction of practices associated with children rather than adolescents. One might, for example, get the impression from these data that a whole language approach to instruction is common in content-ESL programs across grade levels, but whole language is an approach associated with elementary programs for native and non-native students. Its apparent significance is therefore partly a consequence of the preponderance of elementary programs in the database.

Similarly, data from the twenty school visits that were undertaken should be treated cautiously. Site selection for this study was a complex process. While it was possible to generate lists of schools in the database made up of Identification Questionnaire data that met basic criteria, selection ultimately depended on creating a balanced sample that included all grade levels, all regions of the country, a variety of PHLs, a variety of subject matter areas, etc. So, for example, once we identified a school that seemed to be a suitable candidate, we then had to check to make sure that its inclusion did not result in an unbalanced sample. Furthermore, selection was not automatic once the school had been identified -- we still had to be sure that school personnel were receptive to a visit, and we had to agree on dates and identify study team members who could make the visit. If we lost one school, we either replaced it with another that fit the same profile, or our sample was thrown into disequilibrium and we had to change two or three schools. At the same time, we were concerned to include a variety of schools serving diverse student populations. Thus, we needed to locate schools serving Hmong speaking and Haitian Creole speaking students, even though such schools were not represented in our database in large numbers. Similarly, we were asked to include schools serving Native American students. In all, we arrived at a sample that, as indicated, represents a widely diverse cross-section of all such programs, as the field reports show (see Volume II).

In any case, two-day site visits do not often capture what a school

has to offer in robust detail. Specifically, class observation instruments are limited in their capacity to capture the complex dynamic of classroom interactions. If the observations are thoroughly and carefully conducted, as they were in this study, only a handful are possible, and there is no guarantee that the classes observed are in any sense typical[31]. Similarly, since only a few interviews were possible, parents, students, and board members contacted may not have represented the typical or average case. For all of these reasons, great care should be taken in interpreting these findings -- and care should be taken to avoid the inference that all programs function like those surveyed in every detail, in all respects.

5.2 Results

5.2.1 Summary

Students. Spanish predominated as the primary home language of students in content-ESL classes, with 81 percent of the programs reporting the presence of Spanish speaking students and 57 percent reporting that over half of their students had Spanish as their primary home language. More than 170 Primary Home Languages, however, were represented. Thirty-three percent of teachers who participated in the survey indicated that a majority of their students read and wrote their PHLs "adequately"; 29 percent reported that their students read and wrote them "poorly." Administrators also reported students from a wide variety of nationalities or countries of origin.

In 79 percent of the programs, there was no English proficiency requirement for participation. Nine percent said the students should know basic English, while 4 percent said the students should be "at an intermediate English level." On the whole, there appears to be little convergence between practice and theory where the issue of requisite

[31] In fact, they were often classes taught by the most proficient teachers, and more often than was comfortable, they featured model lessons that those teachers had taught with great success in the past.

English language proficiency is concerned (see 5.3 for a thorough discussion of this and other theoretical issues).

The socioeconomic status of students in these programs was characterized as low income for 77 percent of the programs. Only 5 percent said that their students came primarily from moderate to high income homes. Forty percent of the programs reported that between 75 and 100 percent of their students had been schooled continuously in the U.S. In 83 percent of the programs reporting, fewer than 20 percent of the students had experienced refugee education, while in 79 percent of the programs reporting, fewer than 20 percent had experienced migrant education. Most programs reported that their students interacted primarily with native English speakers in organized activities (59 percent) and in conversations with friends and mentors (53 percent).

Teachers. Sixty-three percent of the teachers responding taught both English and subject matter. This number in part reflects the large number of ESL teachers queried rather than a national trend -- i.e., since the database was selective and not random, one cannot be sure that most teachers in content-ESL instruction are ESL rather than content teachers[32]. Of the rest, 12 percent were English teachers who coordinated with their colleagues in content instruction, and 3 percent were content teachers who coordinated with ESL teachers. There were no significant differences between elementary and secondary teachers with respect to these patterns.

The median number of years teachers had taught content-ESL was four. The bachelor's degree was the highest level of educational attainment for 43 percent of the teachers; the master's degree for 55 percent. Eighty percent had received specialized pre- or in-service training in content-

[32] It is, however, possible that content-ESL instruction is still largely the province of the ESL teacher, program, or department since, at the very least, it is simpler for a teacher accustomed to working with LEP students to integrate language and content instruction than a teacher for whom content-ESL is a terra incognita.

ESL, although little is known about the quality and quantity of this training.

Programs. Sixty-two percent of the schools reported that a rapid influx of LEP students into the community had motivated the creation of their content-ESL programs; only 28 percent indicated that the impetus was a legal mandate.

While 50 percent of the schools had been in operation fewer than five years, 37 percent had operated for more than six years.

Seventy-nine percent of the teachers indicated that students in content-ESL classes learned English listening, speaking, reading, and writing skills faster than their previous students in conventional grammar-based classes had. Eighty-nine percent said they also learned more content faster than students in conventional grammar-based classes. Clearly, the approach is growing in popularity, and as it grows the need for more and better trained personnel will become acute.

As for formal evaluation of the approach, within-school comparisons would be possible if both content-ESL and traditional ESL were available and of course tests were identical or highly correlated. Between-school comparisons would be extremely difficult unless the students were comparable in terms of key variables like SES and the same standardized tests were used at the schools involved at each grade level: controlling for pre-existing differences would be difficult, if not impossible[33]. Field interviews indicate that many programs would willingly participate in such a study since program personnel are frequently asked to justify their practices but have little basis for making a principled comparison of treatments.

Instruction. According to teachers' reports, high school students spent more time on academic tasks that require reading and writing in

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[33] A study could and should be undertaken to decide what indicators of effectiveness could be used and, subsequently, to assess programs accordingly (see 5.5).

English, such as math and science, than did elementary school students. According to these reports, secondary and elementary teachers also contrasted in terms of the resources they used in class, while they exhibited no differences in terms of their collaborative patterns. No special modifications were made for older students if older students are defined as those whose schooling had been interrupted.

Students' PHLs were used for instruction in 50 percent of the programs. However, only slightly more than 10 percent devoted more than half the class time to instruction in those languages. More time was spent with PHL support in the primary schools than in elementary, middle, or high schools, according to the teachers responding. No information is available as to the purposes for which PHL support was provided[34].

Roughly 54 percent of the programs had developed curricula specifically for content-ESL. Of these, 31 percent had content-ESL science curricula, 28 percent math curricula, and 36 percent social studies curricula. Secondary schools were more likely to use outlines, notes, and handouts than elementary schools, and elementary schools were more likely to use word banks and audio cassettes. While most programs used material from the regular classes in their classes, the majority (90 percent) also created materials or activities for their students.

According to the teachers responding, elementary school teachers were more likely to use activities that are labelled "progressive" in this study than high school teachers; and high school teachers were more likely to use

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[34] The use of two languages in a content-ESL classroom is of course a complex issue. In general, many programs favor a clear division between instruction in the two languages, although there are many communities in the U.S. where two languages jostle each other constantly, and extensive code-switching is simply an aspect of the way the community communicates. In those cases, the languages coexist as happily inside class as outside (Zentella, 1978). What is generally discouraged in the literature, though common in practice, is the use of consecutive interpretation. Interpretation is difficult under the best of circumstances: it can disrupt the flow of a class if it is not done well and alienate members of the class who do not speak the dominant PHL. Unfortunately, these data give no clear impression of the precise patterns of use, though it is clear that use of the students' PHLs is only one tactic among many that teachers in these programs employ to clarify the material.

teacher-centered modifications in their presentations of instructional materials than primary school teachers. There is little evidence, however, that content-ESL teachers differ radically from their progressive counterparts in the regular classroom in their practices. The teachers surveyed, for example, (like teachers of language arts generally do,) favored a language experience approach and eschewed the language lab. They were also more likely to use textbooks than authentic print materials "always," though the use of authentic material is obviously on the rise and occurs "sometimes" or "often" 68 percent of the time. While many (though not a majority) also acknowledged a preference for such instructional practices as inquiry learning and cooperative learning, these approaches were not devised in response to the specific needs of content-ESL students. Thus, there is little evidence in these data of an emergent content-ESL-specific approach, in the sense of an approach that is created by content-ESL teachers to meet the specific needs of these programs and their students. Rather, an enlightened eclecticism appears to be the general preference.

Assessment. While most programs did not require English proficiency for participation, they used a variety of measures to identify and evaluate students at admission. They also monitored student progress in a lot of different ways, as Chapter Four (this volume) and Volume II reveal in considerable detail. Exit procedures also varied widely, as the field reports in particular show.

As for course-related assessment, teachers in over 50 percent of the programs reported using, in descending order of frequency, informal questioning, teacher-made paper and pencil tests, student projects, quizzes, journals, compositions, and simulations or oral reports. Administrators in over 50 percent of the programs reported using teacher-made tests and quizzes, grades, standardized language tests, and standardized content tests. Portfolio assessment was universally popular.

5.2.2 Discussion

As currently practiced, content-ESL is a mélange of strategies and methodologies, materials and activities, policies and practices that share a common purpose: the preparation of LEP students for the English medium content classroom through language-content integration. Since it falls between instruction in the language and instruction through the language, it opens the door to a variety of instructional modalities from a variety of sources, including (to name only a few) language learning strategies devised by ESL educators, cooperative work in small groups, PHL integration, generic text-driven approaches from the academic classroom, task-oriented activities, criterion-referenced assessment, alternative techniques of assessment, and experiential learning. Therefore, it is best understood as a blend of instructional procedures whose collective virtues are this diversity, a generalized willingness to experiment, and a lack of orthodoxy.

There is a dawning recognition in these programs, if not in the country as a whole, for example, that the use of a student's PHL for instructional support is a valid strategy. Thus, in half the programs reported on here, the students' PHLs are used at least some of the time to support instruction in English. In general, however, the students in these programs listen to and speak English better than they read and write their native languages, if their teachers' reported estimates can be credited. Therefore, despite the PHL's role in the classroom, these programs appear to have little effect on the prevailing subtractive tendency, i.e., the tendency of native languages to be overtaken by English within a single generation.

A majority of the schools reported on here do not require a level of English proficiency for participation in their content-ESL programs. Therefore, recommendations in the literature to the contrary (e.g., the recommendation that students achieve a high beginning or intermediate level prior to participation; see, for example, Chamot and O'Malley, 1994) have

not been followed[35]. Furthermore, in half the programs, 50 percent or more of the students have been educated continuously in the U.S., and students who have experienced interrupted schooling are relatively rare. Indeed, well over half the students across the board have received all of their educational services in this country. Even allowing for older students who had no previous schooling and were therefore educated continuously in the U.S. (though not "from the age of 6 or younger"), and, of course, the database's bias, few of the students enrolled in these classes are likely to feel out of place because of having had no prior experience with the intricacies of U.S. educational institutions, although the mismatch between PHL and school language is still likely be a problem.

Authentic print material is used in programs "often" over 40 percent of the time, according to the teachers surveyed, and nearly half the programs had developed content-ESL-specific curricula. Ninety percent of the teachers said they had created activities or materials for their classes, and they also said that activities were "determined by textbook or textbook series" only some of the time (7.3). As school visits revealed, many teachers are developing modules and activities for their students; many of these have not yet been disseminated.

On the other hand, 45 percent of the teachers surveyed reported using textbooks, on one survey item, while, on another, 90 percent claimed that they used some form of "published material," including modified texts and workbooks (used by 27 percent), texts and workbooks designed for content-ESL instruction (used by 32 percent), basic skills or remedial material (used by 47 percent), mainstream materials (used by 53 percent), and ESL books appropriate to the students' proficiency level(s) (used by 62 percent). On the average, teachers claimed that they used textbooks somewhere between "sometimes" and "frequently" (Information Questionnaire

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[35] Of course, that recommendation is not uncontroversial: many educators, including several associated with CAL, do not support that recommendation.

for Teachers 10.7). These facts send a mixed message, but it seems clear that published, and presumably commercially published, material still has a big role to play in these classes. In other words, the popular assumption that task-oriented approaches such as cooperative or inquiry learning hold sway in content-ESL finds only modest support in these data. Text-dependent exercises and activities -- tried and true fill-in-the-blanks, read-aloud activities[36] -- still take up a lot of class time. This conclusion was borne out in the classes observed across the country: even in those programs where teacher creativity and student initiative were actively rewarded, commercial materials and the rote activities many of them promote were still part of the school's routine.

Judging from evidence accumulated during school visits, alternative forms of assessment such as portfolio assessment are growing in use, though notions of what portfolios are and how their contents might be weighted vary widely. On the whole, the use of alternative assessment does not distinguish teachers and administrators in these programs from their colleagues who deal with highly proficient students. Rather, its endorsement only lends support to the general impression that content-ESL methodology still owes more to creative, across-the-board teaching methodologies than to innovations in LEP education.

The overwhelming majority of the teachers in these programs have received some form of specialized training for content-ESL instruction, and there is some evidence that the teachers in these programs have adopted relatively progressive strategies in their teaching. For example, 27 percent of the variance in instructional approaches was accounted for by a strategy that encompassed cooperative learning, student research projects, and discovery learning. Similarly, over 40 percent claimed that they "often" take a language experience approach, i.e., an approach in which

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[36] Teachers said that they "read aloud from the textbook" (8.20) "often" or "sometimes," but there was considerable variation in that response set (s.d.= 1.17).

students generate their own texts, a fairly progressive method. They also eschew intensive English language exercises such as drills. In all of this, however, there is little evidence to suggest that, in adopting these strategies, they differ from their more progressive colleagues in non-content-ESL programs or that a content-ESL methodology that differs from other approaches is emergent. Indeed, while they associate themselves with innovative approaches such as cooperative learning and whole language, and do not always identify with more conventional practices, they may not be ahead of the curve in implementing any of these innovations. Large-scale surveys, however, are perhaps not the best way to get detailed information on methodological innovations, and of course short-term school visits also have their limitations, not the least of which is their selectivity.

Teacher certification requirements vary widely from state to state. In general, there is a dearth of qualified bilingual teachers in areas of the highest demand. Legislation or policy mandates will not alter that fact. Furthermore, the current reauthorization of the Elementary and Secondary Education Act, which provides the authorization for bilingual education, may well expand funding availability for content-ESL solutions to the need for language development[37]. This trend -- if in fact it emerges as a trend -- is consistent with the move to integrate comprehensive services for LEP students in schools and establish curricular standards at the state level for LEP students. Schools can therefore be expected to opt increasingly for linguistically and culturally sensitive instruction in English and to place more responsibility for that instruction on the regular content teacher than on extensively trained professionals in bilingual education or ESL. Additional coursework in these areas, therefore, is likely to be required of all pre-service degree

[37] At the mark-up of the bill in early February, 1994, provisions governing caps on discretionary expenditure under Title VII, which had the effect of requiring districts to mount bilingual programs, were altered to effectively make it easier for them to substitute alternatives such as stand-alone ESL or sheltered English instruction. As of July, 1994, the bill had not been passed.

programs in the future; in-service training on such topics as multicultural education, language and linguistics, and language development will also be needed to fill the gap. That process has already begun in Florida, where a consent decree is now in effect (see **Appendix XII**).

In addition, schools today provide an array of social services for immigrant students and their families in addition to classes. By offering help with housing, employment, and legal affairs, as well as evening and weekend classes in everything from drug counseling to driving, schools forge strong links with the neighborhood and reinforce family support for education. At schools, it is often the teacher who knows the family best. Many students we interviewed, for example, had developed exceptionally close relationships with their teachers, whom they viewed as friends and counselors, and many of the teachers had assumed wider social roles in their neighborhoods than those normally associated with teachers. By contrast, school administrators were often remote authorities who, despite the best intentions, had little direct contact with the students and their families: they knew less about their lives and antecedents than the teachers did[38].

There is some form of content-ESL in roughly 15 percent of the public schools in the U.S. For the most part, such programs have not been created because they are less expensive than stand-alone ESL classes: they have arisen because of the need to increase achievement among a rapidly expanding LEP population. They can be expected to increase in size and number in the near future. Projections are hard to come by, but if the trend evident in the last decade continues[39], children with limited

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[38] For that reason, the study team decided after field testing its instruments to bifurcate the Information Questionnaire. Teachers and administrators had different perspectives on the programs, and they knew different things about the students they served.

[39] The National Center for Education Statistics, in its November 1993 summary, for example, reported that "the number of persons 5 years old and older...who were reported to speak a language other than English at home increased by about 40 percent" to about 12 percent of the population between

proficiency in English can be expected to enter the public schools in larger numbers and stimulate the creation of still more programs. Programs now in operation will not drop out of sight: they will continue to improve and expand as networks for the exchange of information about the approach are established. Growing concern over the quality of U.S. education, high drop-out rates among minority students, and the need for universal standards will further spur their growth.

5.3 From Practice to Theory

Chapter Two's background summary is divided into eight categories: underpinnings, instructional perspectives, instructional approaches, curriculum and materials, program models, program administration, learner assessment and program evaluation, and teacher education. In what follows, the four categories most closely associated with content-ESL theory are discussed with reference to study data.[40]

5.3.1 Underpinnings

Most programs surveyed appear to have abandoned a discrete-item emphasis in their approaches to language instruction, if they had ever adopted one[41] (indeed, they would not have been included in the study if their only aim was language acquisition without content). For example, the mean response on Information Questionnaire for Teachers 6.4 ("How often do you...[teach] lessons stressing grammar points?") was 3.14, indicating an

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1979 and 1989 [OERI (1993). Language characteristics and schooling in the United States, a changing picture: 1979 and 1989. Washington, D.C.: U.S. Department of Education.].

[40] Appendix IV in this volume provides a copy of the questionnaire that was used. A Likert scale was used in the post-observation checklist, where teachers responded to questions about how often they conducted various activities with one of four answers: "frequently," "sometimes," "seldom," or "never." The scoring for the answers was calculated as "1" for "frequently"; "2" for "sometimes"; "3" for "seldom"; and "4" for "never." If the mean response for a question was 3.5, for example, this indicates that the mean response fell somewhere between "seldom" and "never."

[41] Thirty-one percent of Information Questionnaire for Teachers respondents said they had taught "grammar-based ESL."

average response that fell between "sometimes" and "rarely"[42]. Similarly, the mean response for 7.8 ("How often do you...[require] intensive English language exercises such as drills?") was 3.46, also somewhere between "sometimes" and "rarely," while for 7.16 ("How often do you...[use] systematic pronunciation exercises?") it was 3.51. By comparison, the mean response for 6.2 ("How often do you...[stress]...oral communication and communicative activities?") was 1.59, indicating an average response somewhere between "always" and "often." Similarly, most teachers said they "focus on academic English" through reading and writing (6.1) "often," consistent with the redefinition of oral skills to accommodate the need for literacy among students enrolled in academic programs (e.g., talking about text) mentioned in the review.

There is little evidence in these data to suggest that teachers have adopted Krashen precepts[43] wholesale, although there is also little evidence to suggest that they haven't: the issue was not explicitly addressed because of confusing and ill-defined terminology such as "comprehensible input." It is clear that there is considerable enthusiasm for the Natural Approach (see 2.3.5), which is closely associated with the Krashen model, since the mean score on Information Questionnaire for Teachers 6.3 ("How often do you use...the Natural Approach?") is 2.21, which puts the average somewhere between "often" and "sometimes." There is little evidence of support for Cummins' distinction between social and academic language and his prescriptions as to the time needed to acquire each, but there is no evidence that teachers are not operating with these assumptions either. Most said they favored "contextualized reinforcement of English" (8.8) "often," but their apparent reliance on context-embedded

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[42] Though some readers might weary of the detail provided in this section, others will find it helpful to know what the range in each response set was.

[43] Krashen's hypotheses (the Input Hypothesis, the Affective Filter Hypothesis, etc.) have been transformed by many educators into guiding principles of a pedagogical, even androgogical, nature; an example is the notion that input should be "comprehensible."

instruction may reflect their students' ages and/or their proficiency levels in English. In other words, these data may not indicate an overall bias in favor of contextualized over decontextualized language samples -- or, indeed, the lack of a gradual transition from one to the other -- so much as a preference for contextualization in response to the needs of the learners enrolled in the 468 programs in the database. Most teachers also indicated that they use "authentic print material" (10.8) "sometimes" or "frequently," which is consistent with the notion of a general preference for academic (cf. social) language, even if the data do not definitively confirm such a preference. Fifty-three percent of the respondents on the Information Questionnaire for Teachers also said they use texts and workbooks from the regular, non-ESL classes; 41 percent said they did so on the Identification Questionnaire.

As for immersion, most of the programs reported on here have little in common with such programs since the students' native languages permeate instruction in these classes in a variety of ways. For example, 50 percent of the programs indicated that they use the students' PHL(s) for instruction in content-ESL classes (Identification Questionnaire 14), while mean scores for Information Questionnaire for Teachers 9.17 ("How often do you...explain in a student's native language?") and 9.20 ("How often do you...translate a difficult word?") were 3.23 and 2.62, respectively. The first of these falls between "sometimes" and "rarely," while the second falls between "often" and "sometimes." While these are very indirect measures, they nonetheless suggest that the door is open to native language use[44], while immersion classes are typically conducted exclusively in the foreign language (inside a wider social context in which the students' native language predominates). Thus, the dynamic of language use is different. On the other hand, it is clear from these data that instruction

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[44] Observers, on the other hand, found little evidence of PHL use in the classes they visited: the mean (1.78) fell somewhere between "seldom" and "never" (POC 50).

is delivered primarily in English in these classes since 68 percent reported that the amount of class time devoted to instruction in the students' PHL(s) is 25 percent or less (Identification Questionnaire 15).

English for Specific Purposes (ESP) is described as another source of content-ESL theory and practice, but what evidence is there that the approach has influenced instruction? Again, the issue was not addressed frontally, but there is abundant evidence, as outlined throughout 5.2, that the two forms of instruction are closely allied. For example, where the three instructional models common in post-secondary ESP (theme-based, adjunct, and sheltered) are concerned, 40 percent, 32 percent, and 17 percent of the respondents (Information Questionnaire for Administrators A.1) said that their programs had implemented these models, respectively. The difference, however, is that, while ESP typically stresses the language needed for communication around discipline-specific topics, content-ESL prepares students to acquire an understanding of several academic disciplines in mainstream classes. Thus, it has a wider aim, namely, to enable students to learn more in classes that will require them to function broadly and integratively in the language.

As for learning styles and strategies, little can be inferred from these data as to how aware teachers are of style and strategy differences in their students. Indeed, style and strategy differences are elusive internal states that can only be identified via protocols that require considerable introspection and self-analysis. One possible indicator, however, is that most teachers said that they vary tasks during a single class period (Information Questionnaire for Teachers 6.11) somewhere between "always" and "often"; they also said that they pace their lessons to accommodate the needs of individual students (8.4) about as frequently. Of course, these facts cannot be cited to suggest that they do so to bring the class in synch with style or strategy differences, but they are not inconsistent with such a conclusion. Similarly, most said that they "focus on student awareness of process and/or objectives" (8.3) "always" or

"often," which suggests a general tendency to consult students on process and course objectives. Somewhat more explicitly, teachers were asked how often they "plan lessons with attention to diverse learning styles among students" (8.6), and the mean response was 1.80, which suggests that most teachers are aware of the need to take style differences into account, whether they are aware of explicit differences in their students or not.

Finally, the survey looked at thinking skills in several items. For example, teachers surveyed via the Information Questionnaire for Teachers were asked "how often do you...[stress the] development of strategies for learning and thinking (e.g., strategies for memory, self-evaluation, reasoning)?" (6.12), and the mean (2.29) indicates that the average teacher does that "often" or "sometimes." Likewise, teachers were asked how often they implement "explicit integration of critical thinking skills, academic content, and English" (6.13), and the average teacher said she did that "often" or "sometimes." These responses suggest that thinking skills are integral to the average teacher's planning and teaching routine. The classes actually observed yield a different picture, however. In these classes, less of this kind of activity was evident than survey data suggest. For example, while "lower order questions (e.g., recall)" were used, on the average, "sometimes" or "frequently" (POC 58), "higher order questions (e.g., application, analysis, synthesis, opinion, etc.)" were used, on the average, "seldom" or "sometimes" (POC 60). Similarly, the mean score for "critical thinking" was 2.12, i.e., somewhere between "seldom" and "sometimes" (POC 65). Of course, these facts may simply reflect the deliberately skewed nature of the small sample of classes observed (see 5.1) and the disproportionate number of elementary classes in that sample: higher order questions are presumably less common in elementary classes than in cognitively more demanding secondary classes.

5.3.2 Instructional Perspectives

Because reading theory has affected instruction generally, it has

certainly had an effect in content-ESL classes, although it would be difficult to prove that from survey data. One indicator, however, is that, in response to the question "How often do you use...extensive reading/reading for pleasure?" (Information Questionnaire for Teachers 7.18), the average teacher said she does so "often" or "sometimes," while she said she used "structured reading practice or phonics" (7.19) "sometimes" or "rarely." This indicates an overall bias in favor of activities that are consistent with current theory. The average teacher also said she uses such techniques as graphic organizers, word banks, and semantic mapping in a similar range (10.5, 10.9, 10.14), suggesting an approach that engages the meaning and structure of text rather than simple decoding. Observed teachers also showed evidence of an interest in students' prior knowledge: on the average, they evoked that knowledge "sometimes" or "frequently" (POC 72). On the other hand, there was little evidence of an emphasis on general reading comprehension in these classes: on the average, teachers stressed general comprehension "seldom" or "never" (POC 54).

As for writing theory, teachers said they favor a process-oriented approach. In response to the question "How often do you use...process-oriented composition, diary/journal writing, and/or other forms of free writing?", the average teacher said she does so "often" or "sometimes" (Information Questionnaire for Teachers 7.15). She also indicated that she favors instructional approaches that require such forms of composition (see 5.3.3). Teachers also provided "authentic print material" as models (10.8) "frequently" or "sometimes," indicating possible exposure to cognitively demanding texts that theorists recommend for content-ESL classes.

As for insights from the teaching of mathematics, social studies, and science, these devolve primarily on three requirements: linguistic simplification, experiential learning, and content comparability. That is, the language of instruction should be simplified, if the language is the only barrier to content mastery for LEP students; learning should take a

hands-on, inductive turn, if students are to discover, for example, scientific principles rather than merely read about them; and the content of classes in these curricular areas should challenge the cognitive capabilities of students, rather than implicitly undervalue them via the use of diluted material, for example.

There is evidence in the survey data that teachers in content-ESL classes are sensitive to the first of these requirements. Teachers were asked to identify the "modifications in language" they favored. Of the 20 strategies offered, the five most popular (between "always" and "often" used) were to speak more slowly (9.1), enunciate more clearly (9.2), use definitions or examples (9.5), refer to concrete objects (9.7), and stress key words (9.12)[45]. By contrast, strategies such as speaking louder (9.9) and speaking in sentence fragments (9.14) were much less popular (3.44 and 3.65, respectively). Teachers also indicated that they use non-verbal clues such as gestures (10.1) and facial expressions (10.2) with high frequency to get their meaning across. Teachers were observed to paraphrase student utterances -- an effective way to clarify and repair utterances and reinforce the students' understanding of the content -- between "seldom" and "sometimes" on the average (POC 52). By comparison, teachers claimed to employ this technique "sometimes" or "often" in the survey (Information Questionnaire for Teachers 9.18).

As for experiential and/or discovery learning, teachers, on the average, said they implemented "discovery/inquiry learning" (6.9) and "hands-on activities such as science experiments or vocational training" (7.9) "often" or "sometimes." A high standard deviation (1.10) for the second of these, however, suggests that, while many may strongly favor such activities, many others reject them outright. Relatively few visited classes were devoted to such activities; those that were are described in some detail in Volume II. Teachers were asked how often they use "problem-

[45] An argument could be made that it is such modifications that truly distinguish content-ESL teachers from many of their colleagues.

solving" activities, and the average response falls between "often" and "sometimes" (7.6). On the other hand, "student-teacher research" occurs somewhere between "sometimes" and "rarely" (6.7).

Finally, there is the issue of content comparability: in other words, the question of whether the teachers of these classes modify the content from the regular curriculum by watering it down for their LEP students. The only survey item that addresses it directly asks teachers how often they "simplify content" (Information Questionnaire for Teachers 8.17) to make it "comprehensible" to the students; on the average, teachers said they did this "often" or "always." The response is ambiguous, however, since simplifying the content may mean simplifying it substantively, or it may mean altering its presentation to increase the likelihood that it will be understood. Since 41 percent of the programs surveyed claimed to use unadapted material also used in "the regular classroom" (Identification Questionnaire 19; cf. 53 percent on Information Questionnaire for Teachers 11.2), it seems unlikely that most programs also water the content down, although the **extent** to which this material is used was not established.

5.3.3 Instructional Approaches

Seven approaches are discussed in Chapter Two; each of them is discussed below.

Whole language. Eighty-six percent of the respondents to the initial survey (Identification Questionnaire 17) said that a whole language approach had been adopted in their programs. On the subsequent survey (Information Questionnaire for Teachers 7.1), the average teacher said that she uses whole language activities "often."

Language experience (LEA). This approach is taken slightly less often, according to the information survey (Information Questionnaire for Teachers 7.2): respondents said they use it somewhere between "often" and "sometimes."

Cooperative learning. Cooperative learning was favored by 84 percent of the programs surveyed (Identification Questionnaire 17), and it is used

somewhere between "often" and "sometimes," according to the information survey (Information Questionnaire for Teachers 6.5). Teachers were also asked how often they use "a variety of student groupings," and they said they do so "often" (8.5). Forty-two percent also claimed to use "cooperative assessment" (11.3).

Task-based language learning. The question was not addressed frontally in the surveys because none of the classes investigated had linguistic development as their sole aim. There is evidence, however, that these programs integrate the four skills (8.2), stress communicative activities (6.2), and employ a variety of tasks (8.9), on the average, somewhere between "always" and "often," so presumably something similar to task-based activities that require students to negotiate meaning are common.

The Natural Approach. Teachers surveyed via the Information Questionnaire for Teachers said they use this approach "sometimes" or "often" (6.3), although the standard deviation for this response (1.10) indicates considerable dispersion, with some programs strongly favoring it and others rarely using it, if ever.

Total Physical Response (TPR). In response to the question "How often do you use...activities requiring little production (e.g., TPR)?", teachers said they "rarely" (2.97) use them, on the average. Since TPR is primarily associated in practice with students at stages prior to "speech emergence," this result is not surprising.

The Cognitive Academic Language Learning Approach (CALLA). The issue was not addressed, since information on its dissemination is available from other sources (e.g., commercial publishers).

5.3.4 Curriculum and Materials

There are three issues: (a) Have programs developed their own materials and curricula that incorporate content and language objectives? (b) Do they hold LEP students to the same standards of performance they expect of students in the mainstream? (c) Do they use technological media

such as computer software and video in their classes for LEP students? Since (a) has already been discussed (see 4.1, 5.2) and (b) was never directly addressed, only (c) is discussed in what follows.

Content-ESL programs employ a variety of instructional media in their classes. Fifty-three percent of the programs (Identification Questionnaire 17) indicate that they use computer-assisted instruction (CAI). As a practical matter, this could be anything from an occasional word processing activity on the lone computer in the corner to full-fledged computer-assisted classes in mathematics or science in a computer lab. Of those teachers surveyed by means of the information questionnaire, the mean response to the question "How often do you use...computer-assisted instruction?" (6.10) fell between "sometimes" and "rarely," although the high standard deviation (1.16) suggests wide variance. As for other media, both "videos or films" (10.12) and audio-cassettes (10.13) fell close to "sometimes" in the frequency of their use, as did "overhead transparencies" (10.10). On the whole, non-technological aids scored higher: realia, for example, are used "frequently" (10.3), as one might expect in elementary programs.

5.3.5 Summary

As this section indicates throughout, content-ESL administrators and teachers are aware of the key theoretical issues that lie behind content-ESL implementation. In general, they seem to have adopted practices that are consistent with certain broad trends: away from discrete-point ideas about language toward an interaction with general meaning, away from commercially published texts toward the use of authentic and program-specific material, away from teacher-centeredness toward the learner-centered environment, away from reductionist notions about the learner toward a holistic definition, away from materially driven activities toward experiential learning, and away from student passivity toward active investment in the process. While these tendencies are evident, however, they may not prevail. There are still many teachers in the content-ESL

classroom who espouse more conventional views of learning and the learner; and there are still many programs that have regrouped students without coming to grips with the need for a realignment in programmatic content. Nonetheless, the evidence is there that, while content-ESL practitioners may not always be in the advance guard, they have in large numbers provided their LEP students with instruction that is both responsive to their needs and sensitive to progressive shifts in educational theory.

5.4 Additional Analyses

5.4.1 Tier Analysis

Another way of looking at the relationship between theory and practice is to conduct a tier analysis. In this analysis, variables that are mentioned in the literature as being indicators of program effectiveness are isolated. Then, they are arranged into tiers, from Tier I to Tier III, in descending order of importance. Finally, program data are examined to determine the presence or absence of these variables across, in the case of this study, 468 schools. The analysis provides a picture of the extent to which programs conform to theoretical principles of effective organization.

In the case of this study, study team members, after their review of the literature and considerable discussion, agreed that nine descriptive variables were most often cited as being key indicators of program success. Since this was an informal process, the list of nine indicators that follows is highly selective; their ranking across tiers is also arguably not the same as the ranking that a more objective process would yield. Nonetheless, it is a beginning, and the analysis provides at least a general notion of the extent to which the programs surveyed conform to background ideas of programmatic effectiveness. In the list that follows, the variables are ordered across the three tiers, but they are not ordered within each tier. The relevant questionnaire items are given in parentheses.

Tier I

- A program-specific curriculum (Identification Questionnaire item 18)
- Collaboration/coordination (Information Questionnaire for Teachers item 1.2, C or E)
- Specialized training of teachers (Identification Questionnaire item 5)

Tier II

- Staff development/release time (Information Questionnaire for Administrators item A.10, F and I)
- PHL use for instructional support (Identification Questionnaire item 14)
- Parental involvement (Information Questionnaire for Teachers item 4.3, A or B and C and D)

Tier III

- Paraprofessional support (Identification Questionnaire item 4, E or F)
- Program-specific material (Identification Questionnaire item 19, D)
- Alternative assessment (Information Questionnaire for Teachers item 11.3, three or more of H through M)

In the figures that follow, the distribution (frequencies and percentages) of the 468 programs in the database across the three tiers is reported.

In **Figure XVI**, frequencies and percentages are given for the schools that have one or more Tier I variables present; in **Figure XVII**, for those that have one or more Tier I **and** Tier II variables present; and in **Figure XVIII**, those that have one or more Tier I, Tier II, **and** Tier III variables present. As anticipated in the delineation of these variables, the percentage of those without any variables present approaches zero (0.4 percent) in Figure XVIII. On the other hand, only one school in the database has all nine variables (Portland High School in Portland, Maine).

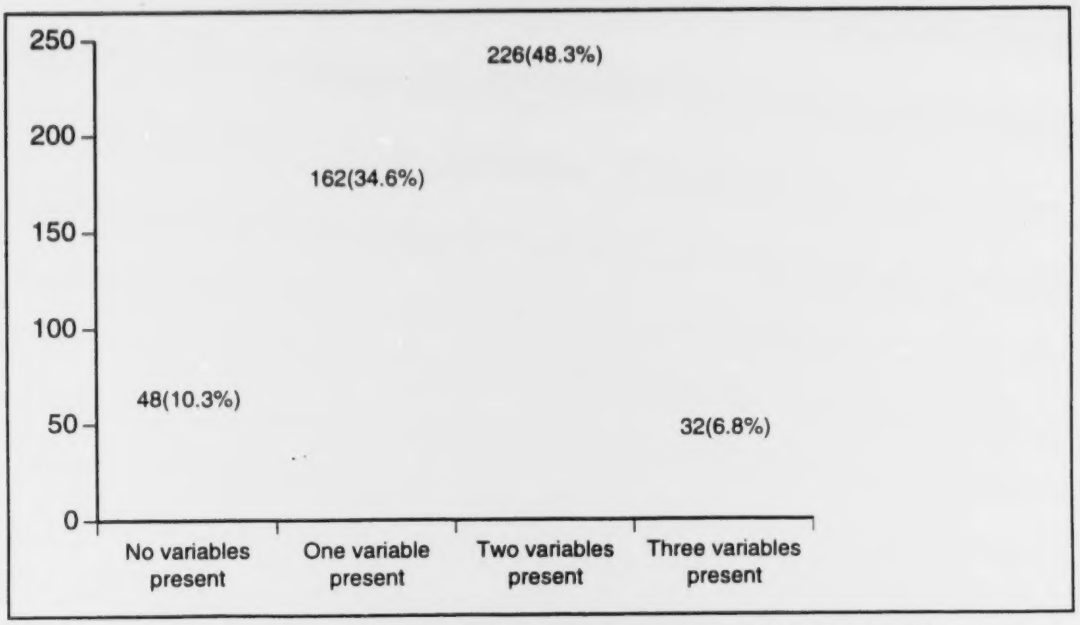

Figure XVI. Tier I Variables: Frequency (Percentage) Across 468 Schools

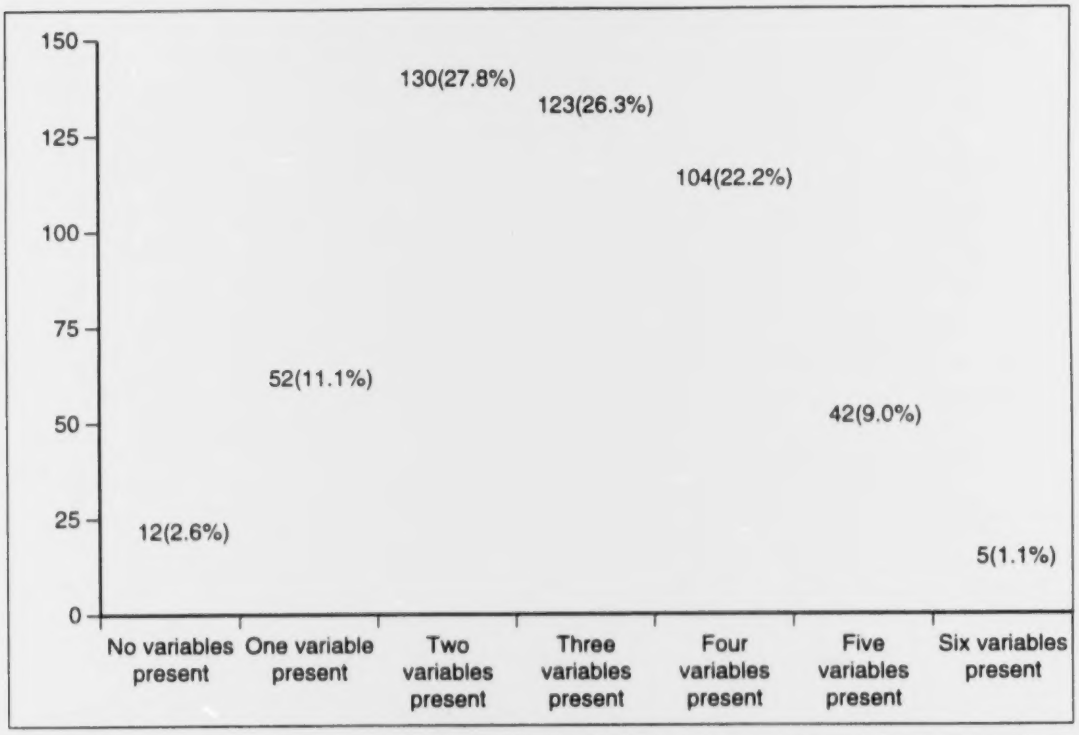

Figure XVII. Tier I and Tier II Variables: Frequency (Percentage) Across 468 Schools

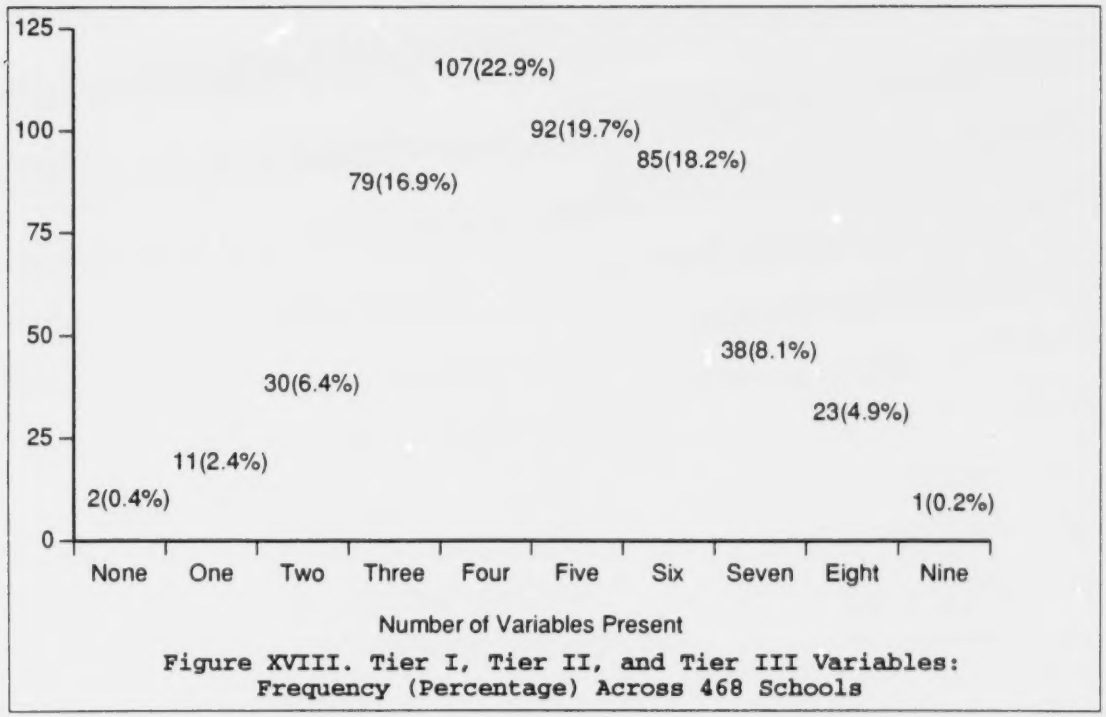

Figure XVIII. Tier I, Tier II, and Tier III Variables: Frequency (Percentage) Across 468 Schools

As the discussion above implies, the analysis does not reveal where schools have fewer than nine variables present, which ones characterize the school's program. An additional analysis would be necessary to arrive at that information. Roughly half of the programs, however, have at least five of the nine variables present, which suggests that many programs are thinking along the same lines where program design is concerned. Furthermore, they are thinking along lines that have been endorsed by theorists. While further analysis would be needed to gain a deeper understanding of the relationship between theory and practice, it seems

clear that there is some consensus as to effective program features.

On the other hand, it is clear that certain recommendations in the background literature have not been followed. One such is the recommendation that students reach a level of proficiency in English to qualify for participation; since, however, other theorists recommend that no such level be required, these data can also be cited as general support for early participation. Similarly, as indicated above, there is little evidence of a strong bias in favor of student-centered approaches, as are frequently recommended, although the teachers in these programs clearly favor innovative teaching methods in large numbers.

5.4.2 Decision Matrix

Since an important function of a study like this is to help practitioners, and particularly school personnel that are contemplating the creation of a content-ESL program, make decisions about program models, a decision matrix was also constructed. In this case, the relationship between program models and larger environmental factors was assessed. As for the program models, descriptions of eleven were provided in a study questionnaire (Information Questionnaire for Administrators A.1) to secure information on the models currently in use:

Early Transitional Bilingual Education (ETBE)
Students are mainstreamed into regular classes early (e.g., within three years) on the basis of English proficiency, particularly in listening and speaking

Late Transitional Bilingual Education (LTBE)
Students spend up to six years in bilingual education and are mainstreamed only when their English proficiency (listening, speaking, reading, and writing) is sufficient for successful academic achievement

Maintenance Bilingual Education (MBE)
Students develop literacy (reading and writing) in their primary (home) language as well as in English

Two-Way (Developmental) Bilingual Education (2-WBE)
Students from language minority and majority groups are integrated in classes for content instruction in two languages

Sheltered English/Sheltered Instruction (SHL)
Students are segregated for content instruction that is tailored to their levels of English proficiency to enhance comprehension

Thematic English (THE)
Students learn English as a second language in thematic (content-oriented) units such as "The Environment"

Adjunct English and Content Instruction (ADJ)
Students learn English from one teacher and content from another, but the teachers plan their classes jointly

Bridge Course Structure (BRG)
Students are placed in transitional courses which systematically introduce elements of academic content while reinforcing English language skills

Content-based ESL (C-B ESL)
Students develop English and content skills and knowledge in classes taught by ESL instructors

Language Sensitive Content Instruction (LAS)
Students from language minority and majority groups are integrated in classes for content instruction in English that is sensitive to the language needs of the learners

Newcomer Center (NEW)
Students who are new to this country are taught English and content before transferring to a regular school

For the purposes of this analysis, these program models were also categorized as to type: early, late, maintenance, and two-way bilingual programs were called "bilingual" (**BIED**); sheltered, thematic, and language sensitive instruction were called "accommodation" (**ACCM**); adjunct, bridge, and newcomer programs were called "structural" (**STRC**); and content-based ESL was called content-based ESL (**C-B ESL**).

The larger environmental factors included school type (elementary, secondary), community size (urban, suburban, town, rural), PHL dominance (monolingual, predominant, diverse), and program size (small, medium, large). The operational definitions for these factors are given in the figures below. In assessing the relationship between these factors and program models, we were looking at the extent to which constellations of environmental factors were associated with the selection of a model. In the figures below, an X indicates that there was a high probability that schools conforming to the environmental variable(s) indicated opted for the model type appearing on the right of the table. The three-variable solution yielded some detail, but a four-variable solution provided even richer detail on the decision vectors followed by these programs.

Figure IXX. Decision Matrix: Three Variables

SCHL TYPE		COMM SIZE[46]				PHL DOM[47]			
EL	SE	UR	SU	TO	RU	MO	PR	DI	
X					X	X			BIED
									ETBE
									LTBE
									MBE
									2-WBE
			X					X	ACCM
									SHL
									THE
									LAS
								X	STRC
									ADJ
									BRG
									NEW
	X	X	X	X			X	X	C-B ESL

[46] A small program was defined as < or = 40 students; a medium, as > 40 but < or = 120; and a large, as > 120.

[47] "Monolingual" refers to programs in which one PHL was spoken by 98-100% of the LEP students; "predominant" was applied to programs in which one language was spoken by at least 75% of the students but fewer than 98%; and "diverse" was used for programs in which no single language was spoken by 75% or more of the LEP students.

Figure XX. Decision Matrix: Four Variables

SCHL TYPE		COMM SIZE				PHL DOM			PROG SIZE			
EL	SE	UR	SU	TO	RU	MO	PR	DI	SM	ME	LA	
												BIED
												ETBE
											X	LTBE
		X								X	X	MBE
						X	X					2-MBE
												ACCM
	X						X	X			X	SHL
												THE
												LAS
												STRC
												ADJ
												BRG
												NEW
	X	X	X	X			X	X				C-B ESL

Note: EL=Elementary SE=Secondary UR=Urban SU=Suburban TO=Town RU=Rural
MO=Monolingual PR=Predominant DI=Diverse SM=Small ME=Medium LG=Large

There are some problems with this analysis, however.

In the first place, all effects are artifacts of the database of only 468 cases. As indicated elsewhere, that database is skewed in favor of elementary and bilingual programs. Factors other than those indicated may therefore influence decisions. For example, bilingual education programs are more common on the elementary level for reasons having to do with funding priorities and the like rather than pedagogical preferences, although there are many sound pedagogical reasons for this approach at that level.

It is also true that wherever you have a monolingual LEP population you are more likely to get bilingual solutions. Similarly, larger communities are more likely to be diverse, i.e., not monolingual, which restricts the probability of bilingual education somewhat. Furthermore, accommodation, largely a matter of "sheltered English," is associated for

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historic reasons with some parts of the country more than others. It is particularly common in California where the LEP population is ethnically diverse.

All such local considerations aside, some trends are clear.

It is clear, for example, that structural options are not especially popular, and newcomer schools, to name one option, are relatively rare. Content-based ESL programs are also far more common in larger communities with ethnically diverse populations than elsewhere. Such schools are also more likely to have ESL programs of whatever type than rural schools. It is also clear that a critical mass of students with the same PHL, together with a steady inflow of such students, is needed to sustain a late transitional program. Similarly, maintenance programs are primarily an urban phenomenon and, in any case, are likely only among larger programs.

In all of these decisions, however, the selection of one model over another may have a political dimension that this study was never intended to capture. Nor, it should be noted, was the study designed to produce a decision matrix. Had it been, a more complex picture of the decision-making process and all of its influences would be possible.

5.5 Recommendations

It is obvious that content-ESL is an approach that has surfaced in response to a variety of conditions, chiefly the rapid influx of students whose knowledge of English is limited into the public schools and the need to find more effective solutions than retaining them in ESL classes until they reach high levels of proficiency in English. While program design and practices vary widely across the country and across grade levels, program personnel who participated in this study agree in large numbers on the value of certain innovative instructional strategies for these students. That bias notwithstanding, there are still a lot of teachers around who favor conventional instruction -- text-driven, teacher-dominated, language-oriented instruction -- that flies in the face of recommendations from

content-ESL theorists who see the value of this approach as being its task orientation and focus off form. In short, it seems obvious that, although success stories abound of content teachers who have discovered the many pleasures associated with the teaching of LEP students, some employ strategies that are sensitive to the needs of LEP students more than others. These data and data from the school visits suggest that we can look forward to incremental gains in the next few years as more content teachers learn more about content-ESL and more successful teachers share their knowledge of these students and effective strategies for teaching them with their colleagues. In the process, governmental agencies can assume a major facilitating role by, among other things, fostering projects like the following.

(1) As the complex process of national goal-setting moves steadily toward closure, it is clear that there is a major need for effective **assessment instruments** to measure LEP student progress across the curriculum (there is an allied need for sensitive standardized tests of English proficiency). At the moment, local and state jurisdictions are struggling with the issue. Unless the Department of Education takes a hand in resolving it, however, a crazy quilt of testing procedures is likely to eventuate, with the result that, among other things, issues of test equity will surface and comparative studies such as are desperately needed will continue to be problematic. Alternatively, LEP students will be exempted from testing, placing them outside the frame of accountability for the educational system and out of the running for opportunities beyond the tests.

(2) A major study is needed that will answer two simple questions: **Does content-ESL work?** Does it work better than alternative approaches? Until answers, no matter how tentative, are found to those questions, school policy will continue to be based on ideological bias and pooled ignorance. There are many problems associated with carrying out such a study, not the least of which is that it requires testing large numbers of

students comparably, but such a study's findings would make a major contribution to the discourse around issues of LEP education. Since such studies are problematic, however, an alternative would be to look at what factors and/or strategies make the approach more effective (without first establishing its effectiveness). Unfortunately, such a study would not be of much help to educators who are struggling the question of whether to opt for content-ESL or not and, if so, of how to defend its adoption to authorities such as school boards.

(3) Assuming that the approach is effective, a second study is needed that would look at **the optimal stage** in the acquisitional sequence, in relation to age, for a school to transition a student from instruction in social language into instruction in academic language, specifically, instruction in content-ESL. As the situation now stands, little is known about when that might be and, as the study indicates, many programs assume, rightly or wrongly, that no proficiency in English is required for participation. Since that is an empirical question, not simply a matter of belief or preference, the issue should be addressed in a full-fledged and principled study of groups that follow variant routes through the curriculum. Specifically, a study that compared two groups, a control and an experimental group, and systematically tested students comparably would be needed to isolate optimal proficiency levels for participation in relation to factors of age, schooling, etc. Until such a study is undertaken, discussion about issues of prior exposure and instruction will continue to wallow in confusion and turn on issues of ideological bias.

(4) Another study, from a different perspective, is also needed. This study would look at a relatively small number of **effective teachers** -- i.e., teachers that actually integrate content and language instruction to the extent of systematically reinforcing both -- and, through extensive videotaping and interviews, catalogue activities, procedures, and techniques that work well for that purpose. In this regard, there is no reason whatever why the study should be confined to classes in which

English is the instructional language: there is certainly as much content-language integration going on in many non-English-medium classes as in English-medium classes[48]. In any event, the time has come to summarize these promising practices and to raise the level of awareness of this approach, particularly among content teachers who are unfamiliar with the needs and strengths of the LEP students in their classes.

(5) A key need for the immediate future is increased communication among school personnel in different districts that are struggling with similar issues and arriving at similar solutions. The content-ESL study has, as is indicated above, developed the only large database of these programs extant. Thus, it offers a unique opportunity for the creation of **regional directories** that would provide information for practitioners about comparable programs, their policies, classroom practices, and personnel. As anyone who has worked in education knows, collateral communication is not only often lacking but, when it does occur, an important source of information for program planners, administrators, and teachers. As schools continue to struggle with the educational needs of immigrant communities, communities not always adequately served in the past, if at all, such communication takes on even more importance.

(6) Finally, as state agencies come to grips with the need to write and maintain curricular standards for LEP students -- standards that are comparable to those for mainstreamed students -- they need to know more about who is doing what and what works and what doesn't. Specifically, **informational packets** that summarize what the study has learned about the programs in each state, and conceivably what we have learned about comparable states, would facilitate their work. As part of that packet, it would be useful to have information about assessment measures, about how to

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[48] Of course, a study of practices in classes where English is the medium of instruction is different from a study of classes where another language is used. That is, the language of instruction would intervene to limit the studies' comparability, particularly if one language were a second language while the other was a native language.

get a fix on how well students are doing without raising issues of equity and fairness. Therefore, recommendations stemming from (1) above should also be included in a comprehensive packet of material covering content-ESL, its virtues and its limitations. A network of regional meetings at which these and other approaches are explained and discussed should also be planned.

Where content-ESL is concerned, it is hard to avoid the cliché about the blind men and the elephant. This study, in short, does not say everything that can be said about this instructional approach and its many guises; nor was it intended to. Rather, it is a significant first step toward a closer understanding, not only of how these programs work and why, but also of how instruction for LEP students can be substantially improved across the board.

Reference List

Alvermann, D. E., et al. (1991). Science teachers' use of text: Three case studies. In C. M. Danta & D. E. Alvermann (Eds.), Science learning processes and application. Newark, DE: International Reading Association.

Anderson, C. W. (1987). Strategic thinking in science. In B. Fly, et al. (Eds.), Strategic thinking and learning: Cognitive instruction in the content areas. Elmhurst, IL: NCREL.

Anderson, J. R. (Ed.). (1981). Cognitive skills and their acquisition. Hillsdale, NJ: Lawrence Erlbaum.

Anderson, J. R. (1983). The architecture of cognition. Cambridge, MA: Harvard University Press.

Anderson, J. R. (1985). Cognitive psychology and its implications. 2nd ed. New York: W.H. Freeman.

Anderson, R., et al. (1984). Becoming a nation of readers: The report on the commission on reading. Washington, DC: U.S. Department of Education.

Anthony, E. M. (1972). Approach, method, & technique. In H. B. Allen & R. H. Campbell (Eds.), Teaching English as a second language: A book of readings. New York: McGraw-Hill, 4-8.

Armbruster, B. (1991). Framing: A technique for improving learning from science texts. In C. M. Santa & D. E. Alvermann (Eds.), Science learning processes and application, Newark, DE: International Reading Association.

Asher, J. J. (1969). The total physical response approach to second language learning. The Modern Language Journal, 53(1), 3-17.

Asher, J. J. (1977). Learning another language through actions: The complete teacher's guidebook. Los Gatos, CA: Sky Oaks Productions.

Asher, J. J. (1982). The total physical response approach. In R. W. Blair (Ed.), Innovative approaches to language teaching. Rowley, MA: Newbury House.

Asher, J. J., et al. (1983). Learning a second language through commands: The second field test. In J. W. Oller, Jr. & P. A. Richard-Amato (Eds.), Methods that work: A smorgasbord of ideas for language teachers. Rowley, MA: Newbury House Publishers, Inc.

Ausubel, D. P. (1967). Learning theory and classroom practice. Bulletin No. 1, Institute for Studies in Education, Toronto, Ontario.

Bakhtin, M. M. (1981). The dialogic imagination. Austin: The University of Texas Press.

Beck, M. L. (1989). Theories of cognitive organization, the acquisition of grammatical competence, and foreign language teaching methodologies. Dissertation, University of Texas at Austin.

Beyer, B. K. (1984). Improving thinking skills - practical approaches. Phi Delta Kappan, 65(9).

Beyer, B. K. (1987). Practical strategies for the teaching of thinking. Boston: Allyn and Bacon.

Bialystok, Ellen. (1991). Language processing in bilingual children. Cambridge: Cambridge University Press.

Bloom, B. S., et al. (1956). Taxonomy of educational objectives: cognitive domain. New York: David McKay.

Brinton, D. M., Snow, M. A., & Wesche, M. B. (1989). Content-based second language instruction. New York: Newbury House.

Brophy, J. (1991). Distinctive curriculum materials in K-6 social studies. Elementary Subjects Center Series No. 35. East Lansing, MI: Michigan State University, The Center for the Learning and Teaching of Elementary Subjects.

Brown, J. D. (1989). Language program evaluation: A synthesis of existing possibilities. In R. K. Johnson (Ed.), The second language curriculum. Cambridge: Cambridge University Press.

Calderon, M. (1989). Cooperative learning for LEP students. (ERIC Document Reproduction Service, No. ED 317 040).

California State Department of Education. (1984). Studies on immersion education: A collection for United States educators. Sacramento, CA: California State Department of Education.

California State Department of Education. (1990). Bilingual education handbook: designing instruction for LEP students. Sacramento, CA: Bilingual Education Office.

Caprio, M. (1989). Whole language learning: Creating a means-end continuum in the second language classroom. Holistic Education Review, Fall, 22-25.

Cantoni-Harvey, C. (1987). Content-area language instruction: Approaches and strategies. Reading, MA: Addison-Wesley.

Carter, T., & Chatfield, M. (1986). Effective bilingual schools: Implications for policy and practice. American Journal of Education, 90, 200-232.

Carter, R. (Ed.). 1982. Linguistics and the teacher. London: Routledge and Kegan Paul. [Language, Education, and Society Series.]

Carver, D. (1984). Plans, learner strategies, and self-direction in language learning. System, 12, 123-33.

Cazden, Courtney. (1990). Recent publications in classroom research. TESOL Quarterly, 24, 717-724.

Chamot, A. U., & O'Malley, J. M. (1987). The cognitive academic language learning approach: A bridge to the mainstream. TESOL Quarterly, 21(2), 227-249.

Chamot, A. U., & O'Malley, J. M. (1989). The cognitive academic language learning approach. In P. Rigg and V. Allen (Eds.), When they don't all speak English. Urbana, IL: National Council of Teachers of English.

Chamot, A.U., & O'Malley, J.M. (1994). The CALLA handbook: Implementing the cognitive academic language learning approach. Reading, MA: Addison-Wesley Publishing Company.

Chamot, A. U., & Stewner-Manzanares, G. (1985). A summary of current literature on English as a second language. Rosslyn, VA: InterAmerica Associates.

Cheek, Jr., E. H., Filippo, R. F., & Lindsey, J. D. (1989). Reading for success in elementary schools. Chicago: Holt, Rinehart and Winston, Inc.

Christian, Donna, & Montone, Chris. (1994). Supplement of two-way bilingual programs in the United States. Washington, DC: Center for Applied Linguistics/NCRCDSLL.

Cochran, C. (1989). Strategies for involving LEP students in the all-English-medium classroom: A cooperative learning approach. Program Information Guide Series. Washington, DC: National Clearinghouse for Bilingual Education.

Collier, V. (1989). How long? A synthesis of research on academic achievement in a second language. TESOL Quarterly, 23(3), 509-31.

Cook, L. (1993). Recommended curricular materials. In Italiano, G., & Rounds, P. (Eds.), English as a second language curriculum resource handbook: A practical guide for K-12 ESL programs. (ERIC Document Reproduction Service No. ED 357-619).

Crandall, J. A. (Ed.). (1987). ESL through content area instruction: Mathematics, science, social studies. Englewood Cliffs, NJ: Prentice Hall Regents/Center for Applied Linguistics.

Crandall, J. A., et al. (1989). English skills for algebra. Book 1: Tutor book,Book 2: Student book. Englewood Cliffs, NJ: Prentice Hall Regents/Center for Applied Linguistics.

Crandall, J. A., & Tucker, G. R. (1989). Content-based language instruction in second and foreign languages. Proceedings of the 1989 Regional Language Conference. Singapore: RELC, 83-96.

Crandall, J. A. (1993). Content-centered learning in the United States. Annual Review of Applied Linguistics, 13, 111-126.

Crismore, A. (1985). Metadiscourse in social studies text. Technical report No. 366. Champaign, IL: Center for the Study of Reading.

Cuevas, G. J. (1984). Mathematics learning in English as a second language. Journal for Research in Mathematics Education, 15, 134-144.

Cummins, J. (1979). Linguistic interdependence and the educational development of bilingual children. Review of Education Research, 49.

Cummins, J. (1981). The role of primary language in promoting educational success for language minority students. In Schooling and language minority students: A theoretical framework. Los Angeles, CA: Evaluation, Dissemination, and Assessment Center.

Cummins, J. (1983). Language proficiency, biliteracy and French immersion. Canadian Journal of Education, 8(2), 117-38.

Cummins, J. (1989). Empowering minority students. Sacramento, CA: California Association for Bilingual Education.

Cummins, J. (1991). Interdependence of first- and second-language proficiency in bilingual children. In E. Bialystok (Ed.), Language processing in bilingual children. Cambridge: Cambridge University Press.

Curtain, H., & Pesola, C. A. (1988). Languages and children: Making the match. Reading, MA: Addison-Wesley.

Dawe, L. (1983). Bilingualism and mathematical reasoning in English as a second language. Educational Studies in Mathematics, 14, 325-53.

DeAvila, E., et al. (1987). Finding out/Descubrimiento. (Teacher's Resource Guide.) Northvale, NJ: Santillana.

deGeorge, G. P. (1985). Bilingual program management: A problem solving approach. Cambridge, MA: Evaluation, Dissemination, and Assessment Center, Lesley College.

deGeorge, G. P. (1987/88, Winter). Assessment and placement of language minority students: Procedures for mainstreaming. Washington, DC: National Clearinghouse for Bilingual Education.

Diaz, R. M., & Klingler, C. (1991). Towards an explanatory model of the interaction between bilingualism and cognitive development. In E. Bialystok (Ed.), Language processing in bilingual children. Cambridge: Cambridge University Press.

Doughty, C., & Pica, T. (1986). "Information gap" tasks: Do they facilitate second language acquisition? TESOL Quarterly, 20 (2), 305-325.

Edwards, H. P., et al. (1984). Second language acquisition through subject matter learning: A study of sheltered psychology classes at the University of Ottawa. Canadian Modern Language Journal Review, 41, 268-282.

Ellis, R. (Ed.). (1987). Second language acquisition in context. London: Prentice-Hall International.

Enright, D. S., & McCloskey, M. L. (1988). Integrating English: Developing English language and literacy in the multilingual classroom. Reading, MA: Addison-Wesley.

Evaluation, Dissemination, and Assessment Center. (1981). Schooling and language minority students: A theoretical framework. Los Angeles, CA: EDAC.

Fly, B., et al. (1987). Strategic thinking and learning: Cognitive instruction in the content areas. Elmhurst, IL: NCREL.

Garcia, E. (1983). Bilingualism in early childhood. Albuquerque, NM: University of New Mexico Press.

Garcia, E. (1986). Bilingual development and the education of bilingual children during early childhood. American Journal of Education, 95(1), 96-121.

Garcia, E. (1987). Instructional discourse in effective Hispanic classrooms. Working Paper #3, Bilingual/Bicultural Education Center. Tempe, Arizona: Arizona State University.

Gee, J. P. (1989). Literacy, discourse, and linguistics: Introduction. Journal of Education, 171, 5-17.

Genesee, F. (1994). Integrating language and content: Lessons from immersion. Washington, DC: National Center for Research on Cultural Diversity and Second Language Learning.

Genesee, F. (1987). Learning through two languages. Rowley, MA: Newbury House.

Glatthorn, Allan A. (1985). Living responsibly--and writing effectively. Momentum, 15(1), 28-30.

Goodlad, J. I. (1984). A place called school. New York: McGraw-Hill.

Goodman, K. S. (Ed.). (1986). The psycholinguistic nature of the reading process. Detroit, MI: Wayne State University Press.

Goodman, Y. M. (1988). Beginning reading development: strategies and principles. In R. P. Parker & F. A. Davis (Eds.), Developing literacy: young children's use of language. Newark, DE: International Reading Association.

Gough, P. B. (1972). One second of reading. In J. F. Kavanaugh & I. G. Mattingly (Eds.), Language by ear and eye. Cambridge: MIT Press.

Grimes, B. F. (Ed.). (1988). Ethnologue: Languages of the world. Dallas, TX: The Summer Institute of Linguistics.

Hakuta, K. (1986). Mirror of language. New York: Basic Books, Inc.

Hakuta, K., & Cancino, H. (1980). Trends in second-lnaguage acquisition research. In M. Wolf, M. K. McQuilan, & E. Radwin (Eds.), Thought and language/language and reading. Cambridge, MA: Harvard Educational Review.

Halliday, M. A. K. (1978). Language as social semiotic. London: Edward Arnold.

Harrison, S. (1991). Tools for learning science. In C. M. Santa & D. E. Alvermann (Eds.), Science learning processes and application. Newark, DE: International Reading Association.

Hawkins, T. (1976). Group inquiry techniques for teaching writing. Urbana, IL: ERIC/National Council of Teachers of English.

Hayden, D., & Cuevas, G. J. (1989). Pre-algebra lexicon. Washington, DC: Center for Applied Linguistics.

Heald-Taylor, G. (1989). Whole language strategies for ESL students. San Diego, CA: Dormac, Inc.

Holliday, W. G. (1991). Helping students learn more effectively from science texts. In C. M. Santa & D. E. Alvermann (Eds.), Science learning processes and application. Newark, DE: International Reading Association.

Hutchinson, T., & Waters, A. (1987). English for specific purposes: a learning-centered approach. Cambridge: Cambridge University Press.

Irujo, Suzanne. (1990). How to plan content-based teaching units for ESL. Paper presented at the Annual Meeting of the Teachers of English to Speakers of Other Languages.

Italiano, G., & Rounds, P. (Eds.). (1993). English as a second language curriculum resource handbook: A practical guide for K-12 ESL programs. (ERIC Document Reproduction Service No. 357 619).

Jacob, E., & Mattson, B. (1987). Cooperative learning with limited English proficient students. (ERIC Reproduction Service, No. ED 287 314).

Jacob, E., & Mattson, B. (1990). Cooperative learning: Instructing limited-English-proficient students in heterogeneous classes. In A. M. Padilla, H. H. Fairchild, & C. M. Valdez (Eds.), Bilingual education: Issues and

strategies. Newbury Park, CA: Sage Publications.

Johnson, D. W., & Johnson, R. T. (1987). Learning together and alone. Englewood Cliffs, NJ: Prentice Hall, Inc.

Kessler, C. (1986). Mathematics and language intersections for Hispanic bilingual students. Paper presented at the Annual Meeting of the National Council of Teachers of Mathematics.

Kidd, R., & Marquardson, B. (1993). A sourcebook for integrating ESL and content instruction using the foresee approach. (ERIC Document Reproduction Service No. ED 363 118).

Kincheloe, J. L., & Steinberg, S. R. (1993). A tentative description of post-formal thinking: The critical confrontation with cognitive theory. Harvard Educational Review, 63(3), 296-320.

Krashen, S. (1981). Bilingual education and second language acquisition theory. In Schooling and language minority students: A theoretical framework. Los Angeles: California State University: Evaluation, Dissemination, and Assessment Center.

Krashen, S. (1984). Immersion: Why it works and what it has taught us. Language and Society, 12, 61-4.

Krashen, S. (1985). The input hypothesis: Issues and implications. New York: Longman.

LaBerge, D., & Samuels, S. J. (1974). Towards a theory of automatic information processing in reading. Cognitive Psychology, 6.

Lambert, W. E. (1984). An overview of issues in immersion education. In Office of Bilingual Bicultural Education (Eds.), Studies on immersion education: A collection for United States educators. Sacramento, CA: California State Department of Education, 8-30.

Lambert, W. E., & Tucker, G. R. (1972). Bilingual education for children: The St. Lambert experiment. Rowley, MA: Newbury House.

Lapkin, S., & Cummins, J. (1984). Canadian French immersion education: Current administrative and instructional practices. In Office of Bilingual Bicultural Education (Eds.), Studies on immersion education: A collection for United States educators. Sacramento, CA: California State Department of Education, 58-86.

Lindholm, K. (1987). Directory of bilingual immersion programs: Two-way bilingual education for language minority and majority students. Los Angeles: UCLA, Center for Language Education and Research.

Lindholm, K. (1990). Bilingual immersion education: Criteria for program development. In A. M. Padilla, H. H. Fairchild, & C. M. Valdez (Eds.), Bilingual education: Issues and answers. Newbury Park, CA: Sage.

Long, M. (1985). Input and second language acquisition theory. In S. Gass, & C. Madden (Eds.), Input and second language acquisition. Rowley, MA: Newbury House Publishers, Inc.

Long, M., Adams, L., McClean, M., & Castanos, F. (1976). Doing things with words--verbal interaction in lockstep and small group situations. In J. Fanselow & R. Crymes (Eds.), On TESOL '76. Washington, DC: TESOL.

Lowenberg, P. (Ed.). (1989). Proceedings of the 1989 Georgetown University Roundtable on Languages and Linguistics. Washington, DC: Georgetown University Press.

Lucas, T., Henze, R., & Donato, R. (1990). Promoting the success of Latino language-minority students: An exploratory study of six high schools. Harvard Educational Review, 60(3), 315-340.

Magnan, S. (Ed.). (1991). Challenges in the 1990s for college foreign language programs. Boston, MA: Heinle and Heinle.

McDermott, R. (1977). The cultural context of learning to read. In S. Wanat (Ed.), Issues in evaluating reading. Washington, DC: Center for Applied Linguistics. [Papers in applied linguistics, Linguistics and Reading Series: 1.]

McLaughlin, B. (1987). Theories of Second-Language Learning. London: Edward Arnold.

Mestre, J. P. (1984). The problem with problems: Hispanic students and math. Bilingual Journal, Fall, 15-20.

Mestre, J. P., & Gerace, W. J. (1986). A study of the algebra acquisition of Hispanic and Anglo ninth graders: Research findings relevant to teacher training and classroom practice. NABE Journal, 15, 19-32.

Meyer, L. L. (1990). Materials and curriculum: Are science books considerate? In C. M. Santa & D. E. Alvermann (Eds.), Science learning processes and application. Newark, DE: International Reading Association.

Michigan State Department of Education. (1989). Bilingual instruction in Michigan. A position statement by the state board of education. Lansing, Michigan: Michigan State Department of Education.

Mohan, B. (1979). Relating language and teaching content. TESOL Quarterly, 13(2), 171-182.

Mohan, B. (1986). Language and content. Reading, MA: Newbury House.

Mohan, B. (1990). LEP students and the integration of language and content: Knowledge structures and tasks. Paper presented at the National Symposium on Limited English Proficient (LEP) Students Research Issues, Office of Bilingual Education and Minority Languages Affairs, Washington, D.C.

Mullis, I., & Jenkins, L. B. (1988). The science report card: Elements of risk and recovery. Princeton, NJ: Educational Testing Service.

National Commission on Social Studies in the Schools. (1989). Charting a course: Social studies for the 21st century. A report of the task force of the National Commission on Social Studies in the Schools.

National Council for the Social Studies. (1976). Curriculum guidelines for multiethnic education. Washington, DC: NCSS.

Northcutt, L., & Watson, D. (1986). S.E.T.: Sheltered English teaching handbook. San Marcos, CA: AM Graphics & Printing.

Oller, J. W., Jr., & Richard-Amato, P. A. (Eds.). (1983). Methods that work: A Smorgasbord of ideas for language learners. Rowley, MA: Newbury House Publishers, Inc.

O'Malley, J. M. (1983). The 1980-81 teachers language skills survey (Final

Report). Rosslyn, VA: InterAmerica Research Associates.

Oxford, R. L. (1990). Language learning strategies: What every teacher should know. New York: Newbury House/Harper & Row.

Oxford, R. L., Ehrman, M., & Lavine, R. Z. (1991). Style wars: Teacher-student style conflicts in the language classroom. In S. Magnan (Ed.), Challenges in the 1990s for college foreign language programs. Boston, MA: Heinle and Heinle, 1-25.

Oxford, R. L., & Holloway, M. E. (in progress). Crosscultural differences in language learning style.

Ovando, C. J., & Collier, V. P. (1985). Bilingual and ESL classrooms: Teaching in multicultural contexts. New York: McGraw-Hill.

Padak, N. D., & Davidson, J. I. (1991). Instructional activities for comprehending science texts, In C. M. Santa & D. E. Alvermann (Eds.), Science learning processes and application. Newark, DE: International Reading Association.

Padilla, A. M., Fairchild, H. H., & Valdez, C. M. (Eds.). (1990). Bilingual education: Issues and strategies. Newbury Park, CA: Sage Publications.

Parker, R. P., & Davis, F. A. (Eds.). (1988). Developing literacy: young children's use of language. Newark, DE: International Reading Association.

Ramirez, A. G. (1986). Language learning strategies used by adolescents studying French in New York schools. Foreign Language Annals, 19, 131-141.

Reeves, J. (1989). Elementary school foreign language programs. Washington, DC: ERIC/Clearinghouse on Languages and Linguistics.

Resnick, L. B., & Weaver, P. A. (Eds.). (1979). Theory and practice of early reading. Vol. 2. Hillsdale, NJ: Lawrence Erlbaum Associates.

Richard-Amato, P. A., & Snow, M. A. (1992). Introduction. The multicultural classroom: Reading for content-area teachers. London: Longman.

Richards, J. C. (Ed.). (1990). The language teaching matrix. Cambridge: Cambridge University Press.

Richards, J. C., & Hurley, D. (1990). Language and content: Approaches to curriculum alignment. In J. C. Richards (Ed.), The language teaching matrix. Cambridge: Cambridge University Press.

Richards, J. C., & Rodgers, T. S. (1986). Approaches and methods in language teaching. Cambridge: Cambridge University Press.

Rigg, P., & Allen, V. (Eds.). (1989). When they don't all speak English. Urbana, IL: National Council of Teachers of English.

Roberts, C. and Siminot, M. (1987). This is my life: how language acquisition is interactionally accomplished. In R. Ellis (Ed.), Second Language Acquisition in Context. London: Prentice-Hall International.

Rosebery, A. S., et al. (1990). Making sense of science in language minority classrooms. Cambridge, MA: Bolt, Beranek & Newman.

Rumelhart, D. E. (1977). Toward an interactive model of reading. In S. Dornic (Ed.), Attention and performance. Vol. VI. New York: Academic Press.

Samuels, S. (1977). Introduction to theoretical models of reading. In W. Otto, L. Peters, & N. Peters (Eds.), Reading problems. Boston, MA: Addison-Wesley.

Santa, C. M., & Alvermann D. E. (Eds.). (1991). Science learning processes and application. Newark, DE: International Reading Association.

Savignon, S., & Berns, M. (1983). Initiatives in communicative language teaching: A book of readings. Reading, MA: Addison Wesley Publishing Company.

Scarcella, R., & Oxford, R. (1992). The tapestry of language learning: the individual in the communicative classroom. Boston, MA: Heinle and Heinle.

Secada, W., & Carey, D. A. (1990). Teaching mathematics with understanding to limited English proficient students. New York: ERIC Clearinghouse on Urban Education.

Shih, May. (1992). Beyond comprehension exercises in the ESL academic reading class. TESOL Quarterly, 26(2), 289-318.

Short, D. J. (1991). How to integrate language and content instruction: A training manual. Washington, DC: Center for Applied Linguistics.

Short, D. J., et al. (1988). Of the people: United States History. Washington, DC: Center for Applied Linguistics.

Slavin, R. (1981). Synthesis of research on cooperative learning. Educational Leadership, 39, 55-60.

Slavin, R. (1983). Cooperative Learning. New York: Longman.

Slavin, R. E. (1987). Cooperative learning and the cooperative school. Educational Leadership, 45(3), 7-13.

Slavin, R. (1989/90). Research on cooperative learning: Consensus and controversy. Educational Leadership, 47(4), 52-55.

Smith, F. (1979). Conflicting approaches to reading research and instruction. In L. B. Resnick & P. A. Weaver (Eds.), Theory and practice of early reading. Vol. 2. Hillsdale, NJ: Lawrence Erlbaum Associates.

Smith, F. (1988). Understanding reading. New York: Holt, Rinehart, & Winston.

Snow, Marguerite Ann, & Brinton, Donna M. (1988). Content-based language instruction: investigating the effectiveness of the adjunct model. TESOL Quarterly, 45(4).

Snow, Marguerite Ann, & Brinton, Donna M. (1988). The adjunct model of language instruction: Integrating language and content. Los Angeles: UCLA, Center for Language and Education and Research.

Stanovich, K. (1980). Toward an interactive-compensatory model of individual differences in the development of reading fluency. Reading Research Quarterly, 16.

Swain, M. (1984). A review of immersion education in Canada: Research and evaluation studies. In Office of Bilingual Bicultural Education (Eds.), Studies on immersion education: A collection for United States educators. Sacramento, CA: California State Department of Education, 87-112.

Terrell, T. D. (1983). The natural approach to language teaching: An update. In J. W. Oller, Jr. & P. A. Richard-Amato (Eds.), Methods that work: A smorgasbord of ideas for language teachers. Rowley, MA: Newbury House Publishers, Inc.

Throne, Jeanette. (1994). Living with the pendulum: The complex world of teaching. Harvard Educational Review, 64(2), 195-208.

Tikunoff, W. J., et al. (1980). Significant bilingual instructional features study. San Francisco, CA: Far West Laboratory for Educational Research and Development.

Tikunoff, W. J., et al. (1991). Significant features of exemplary special alternative instructional programs. San Francisco, CA: Far West Laboratory for Educational Research and Development.

Tikunoff, W. J., & Vazquez-Faria, J. A. (1982). Successful instruction for bilingual schooling. Peabody Journal of Education, 59(4), 234-71.

Tipper, Steven P., et al. (1989). Mechanisms of attention: A developmental study. Journal of Experimental Child Psychology, 48(3), 353-78.

Tucker, G. R., & Crandall, J. A. (1989). The integration of language and content instruction for language minority and language majority students. In P. Lowenberg (Ed.), Proceedings of the 1989 Georgetown University Roundtable on Languages and Linguistics. Washington, DC: Georgetown University Press.

Van Allen, R., & Allen, C. (1976). Language experience activities. Boston: Houghton and Mifflin.

U.S. Department of Education, Office of Educational Research and Improvement. (1993). Language characteristics and schooling in the United States, a changing picture: 1979 and 1989. Washington, D.C.: U.S. Department of Education.

Wanat, S. (Ed.). (1977). Issues in evaluating reading. Washington, DC: Center for Applied Linguistics. [Papers in applied linguistics, Linguistics and Reading Series: 1.]

Warren, B., et al. (1989). Paper presented at the First Innovative Approaches Research Project Symposium, Washington, DC.

Weaver, C. (1980). Psycholinguistics and reading: From process to practice. Cambridge, MA: Winthrop.

Widdowson, H. G. (1979). Explorations in applied linguistics. Oxford: Oxford University Press.

Widdowson, H. (1983). Learning purpose and language use. Cambridge, MA: MIT Press.

Wolf, M., McQuilan, M. K., & Radwin, E. (Eds.). (1980). Thought and language/language and reading. Cambridge, MA: Harvard Educational Review.

Wong-Fillmore, L. (1986). Research currents: equity or excellence? Language Arts, 63(5), 474-81.

Zamel, V. (1983). The composing process of advanced ESL students: Six case studies. TESOL Quarterly, 17.

Zentella, A. C. (1978). Code-switching and interactions among Puerto Rican children. Sociolinguistic Working Paper No. 50. Austin, TX: Southwest Educational Development Laboratory.

Appendices

Appendix I
Database Development

Since no previous study of similar scope has ever been undertaken, no database of current content-ESL programs existed. Therefore, one had to be built from scratch, and that was accomplished by soliciting information about programs in a nomination process and accessing OBEMLA information on currently funded programs under Title VII.

Nominations of schools to participate in this phase were solicited in a variety of ways. Specialists in the teaching of English as a second language (ESL), bilingual educators, and teacher educators across the U.S. were contacted directly by mail for suggestions, as were the sixteen Multifunctional Resource Center Directors, advisory committee members[1], and state education agency personnel. In addition, announcements were placed in all the major publications related to content-based ESL, on the TESL-L computer network, and elsewhere. All of these efforts, after considerable double-checking by telephone and the elimination of duplicates, resulted in 1064 nominations. Information about these schools was entered into a computerized database: the database information for each school consisted of a contact person, a school name, an address, a regional designation (South, Southwest, Northwest, Middle West, or East), and a telephone number; in some cases, information on grade level was also available.

In addition, OBEMLA provided the database of programs currently funded under Title VII. Since that database is built up of **programs**, many of them multi-school programs, funding documentation forms for the current grant recipients had to be obtained and copied for checking and database entry. Virtually every recipient was then contacted by telephone to obtain the names of the **schools** included in each grant. In the process, many changes in personnel were uncovered, addresses were corrected, school-based personnel were informed of the impending survey, etc. These efforts resulted in 1928 additional entries in a second component of the database. Although time did not permit a careful purging of duplicates across the two lists (nominees **and** grant recipients), few have since been uncovered.

Altogether, **2992** potential content-ESL program sites were available for participation in the Identification Questionnaire survey. These schools then became the target population for distribution of that questionnaire. Though the resulting database is the most comprehensive available, the database does not of course contain the names of **all** schools housing content-ESL programs; nor do all schools it contains have content-ESL programs. Since the schools surveyed were nominees or grantees only, it is not therefore appropriate to make generalizations about all content-ESL programs in the U.S. from the results presented below.

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[1] Dr. Margarita Calderon, Mr. Tim D'Emilio, Dr. Else Hamayan, Dr. Jack Hermansen, Mr. Jon Kaiser, Dr. Betty J. Mace-Matluck, Dr. Luis A. Martinez-Perez, Dr. Carmen L. Mercado, Dr. Bernard Mohan, Mr. Hector Montenegro, Dr. Rebecca L. Oxford, Dr. David Ramirez, Dr. Marguerite Ann Snow, and Dr. Hai T. Tran

Appendix II
Operationalization of Key Variables

Socio-economic Status (SES)

Socio-economic status was measured by two items, one on the Identification Questionnaire (IdQ), and one on the Information Questionnaire for Administrators (InfoQ:A). The first question was: "How would you characterize the socio-economic status of most of the students in your program?" (22). The choices given were: (1) Families of moderate-high income, (2) Families of moderate income, (3) Families of low-moderate income, (4) Families of low income, and (5) I have no idea. The second question was: "What percentage of the LEP students in your content-ESL classes is eligible to participate in a free or reduced-price lunch program?" (D.1). The choices were: (1) 0-19 percent, (2) 20-39 percent, (3) 40-59 percent, (4) 60-75 percent, (5) 75-100 percent.

Community Size

Community size was measured by a single item on the Identification Questionnaire. The question was "How would you characterize your school's location?" The choices given were: (1) Large Metropolitan Area (500,000 or greater)-central city, (2) Large Metropolitan Area (500,000 or greater)-outside central city, (3) Mid-sized Metropolitan Area (100,000-499,999)-central city, (4) Mid-sized Metropolitan Area (100,000-499,999)-outside central city, (5) Large Town (25,000-99,999), (6) Small Town (2,500-24,999), (7) Rural Area (fewer than 2,500).

Type of School

Schools were assigned to five categories: primary, elementary, middle, high school, and multigrade or unknown. If a school contained no grades higher than three, it was called primary. If a school contained no grade higher than 8 and contained a grade lower than 4, it was called elementary. If a school contained no grade higher than 9 and no grade lower than 4, it was called middle. If a school contained no grade lower than 7 and grades higher than 9, it was called a high school. All others were called multigrade or unknown. Typically, a multigrade school was K-12.

Appendix III
States by Region Including Territories and Commonwealths

NORTHEAST:

Connecticut
Delaware
District of Columbia
Maine
Maryland
Massachusetts
New Hampshire
New Jersey
New York
Pennsylvania
Rhode Island
Vermont

SOUTH:

Alabama
Arkansas
Florida
Georgia
Kentucky
Louisiana
Mississippi
North Carolina
Oklahoma
Puerto Rico
South Carolina
Texas
Tennessee
Virgin Islands
Virginia
West Virginia

SOUTHWEST:

Arizona
California
Colorado
Guam
Hawaii
Nevada
New Mexico
Utah

NORTHWEST:

Alaska
Idaho
Montana
North Dakota
South Dakota
Washington
Wyoming

MIDDLE WEST:

Illinois
Indiana
Iowa
Kansas
Michigan
Minnesota
Missouri
Nebraska
Ohio
Wisconsin

Appendix IV

Identification Questionnaire
Information Questionnaire for Administrators
Information Questionnaire for Teachers
Post Observation Checklist

UNITED STATES DEPARTMENT OF EDUCATION
CONTENT-ESL IDENTIFICATION SURVEY

DIRECTIONS:

USING A NO. 2 PENCIL, PLEASE CAREFULLY FILL IN THE RESPONSE(S) THAT CORRESPOND(S) TO THE ANSWER(S) YOU HAVE CHOSEN.

Proper Mark

(1) What grades are included in your school's content-ESL classes?

- ○ Pre-K
- ○ K
- ○ 1
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ 7
- ○ 8
- ○ 9
- ○ 10
- ○ 11
- ○ 12

(2) Which of the following labels fit(s) your content-ESL program? (PLEASE INDICATE ALL THAT APPLY)

- ○ Content-based ESL
- ○ Sheltered content classes *
- ○ Regular classes with some attention to LEP needs
- ○ Other (PLEASE SPECIFY)

_____

_____

*** Teacher's language is systematically adjusted to accommodate LEPs**

(3) What subject matter areas are included in this instruction? (PLEASE INDICATE ALL THAT APPLY)

- ○ Science
- ○ Math
- ○ Social Studies
- ○ Language arts/reading
- ○ Other (PLEASE SPECIFY)

_____

_____

(4) Who provides the instruction in these classes? (PLEASE INDICATE ALL THAT APPLY)

- ○ Regular classroom/content teachers
- ○ ESL teachers
- ○ Bilingual teachers
- ○ Support teachers
- ○ Bilingual aides and other aides
- ○ Assistants and/or volunteers

(5) Have most teachers involved in the program received specialized pre- or in-service training in content-ESL?

- ○ Yes
- ○ No

(6) How many students are being served by the content-ESL program at present?

- ○ 25 or fewer
- ○ 26 to 50
- ○ 51 to 100
- ○ 101 to 150
- ○ More than 150

(7) What is the average class size in the program?

- ○ 5 or fewer
- ○ 6 - 15
- ○ 16 - 20
- ○ 21 - 25
- ○ 26 - 50

(8) How long has the program been in operation?

- ○ Less than one year
- ○ One - two years
- ○ Three - four years
- ○ Five - six years
- ○ More than six years

(9) How is the program funded?
(PLEASE INDICATE ALL THAT APPLY)

- ○ Federal funds (e.g., Title VII)
- ○ State funds
- ○ District funds
- ○ Other sources (PLEASE SPECIFY)

_____

_____

_____

(10) What level of proficiency in English, if any, is required for participation?

- ○ There is no requirement
- ○ Students should know basic English
- ○ They should be at an intermediate level
- ○ They should be highly proficient listeners/speakers
- ○ They should read and write academic English as well as listening and speaking well

(11) Whether you require minimal proficiency for participation or not, what percent of the LEP students in your program are of low, medium, and/or high English proficiency?
(The total of the three columns should not exceed 100%.)

Low/ Beginning	Medium/ Intermediate	High/ Advanced
○ 10% or less	○ 10% or less	○ 10% or less
○ 11 - 25 %	○ 11 - 25 %	○ 11 - 25 %
○ 26 - 50%	○ 26 - 50%	○ 26 - 50%
○ 51 - 75%	○ 51 - 75%	○ 51 - 75%
○ 76% or more	○ 76% or more	○ 76% or more

(12) If proficiency in English is not used as a basis for placing students into content-ESL classes, what is?
(PLEASE INDICATE ALL THAT APPLY)

- ○ Age/grade
- ○ Content achievement
- ○ Primary (home) language literacy
- ○ Does not apply, English proficiency is used
- ○ Other (PLEASE SPECIFY)

_____

_____

(13) What percent of the LEP students in your program speak the following primary (home) languages? Add languages as needed.

EXAMPLE

Spanish 40%

20 40 60
10 30 50 70
Spanish

20 40 60 80 100
10 30 50 70 90

Spanish

Vietnamese

Korean

Chinese

_____

_____

_____

_____

_____

(14) Are the students' primary (home) languages used for instruction in your content-ESL classes?

- ○ Yes
- ○ No (GO TO QUESTION 17)

(15) What percentage of class time is devoted to content-ESL instruction in the students' primary (home) language(s)?

- ○ 25 % or less
- ○ 26 - 50%
- ○ 51% or more

(16) What languages other than English are used for instruction in your content-ESL classes? (PLEASE SPECIFY)

_____

_____

(17) Which of the following instructional approaches is used in your content-ESL classes? (PLEASE INDICATE ALL THAT APPLY)

- ○ Whole language
- ○ Cooperative learning
- ○ Computer-assisted instruction
- ○ A thematic structure
- ○ None of the above

(18) Has a curriculum been developed specifically for this program?

- ○ Yes
- ○ No

(19) What printed materials are commonly used in the program? (PLEASE INDICATE ALL THAT APPLY)

- ○ Unadapted material used in the regular classroom
- ○ Remedial/basic skills material
- ○ Material adapted from the regular classroom
- ○ Material prepared specifically for the program
- ○ No material at all

(20) How is student progress measured? (PLEASE INDICATE ALL THAT APPLY)

- ○ Teacher-made tests
- ○ Portfolio assessment
- ○ Student self-evaluation
- ○ Progress checklists
- ○ Other (PLEASE SPECIFY)

_____

(21) How long does the average student remain in content-ESL classes before being fully mainstreamed?

- ○ One year or less
- ○ Two years
- ○ Three years
- ○ Four years
- ○ Five years or more

(22) How would you characterize the socio-economic status of most of the students in your program? (PLEASE INDICATE ALL THAT APPLY)

- ○ Families of moderate-high income
- ○ Families of moderate income
- ○ Families of low-moderate income
- ○ Families of low income
- ○ I have no idea

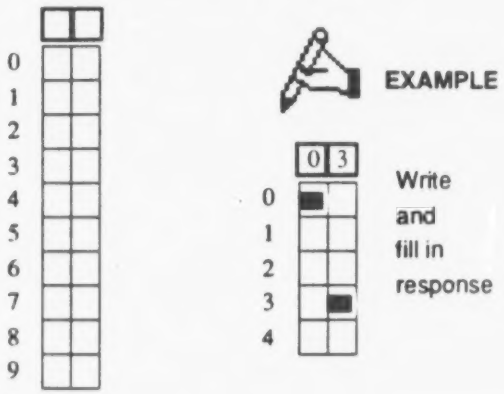
(23) How would you characterize your school's location?

Large metropolitan area (500,000 or greater)
- ○ Central city
- ○ Outside central city

Mid-sized metropolitan area (100,000 - 499,999)
- ○ Central city
- ○ Outside central city

- ○ Large town (25,000 - 99,999)
- ○ Small town (2,500 - 24,999)
- ○ Rural area (fewer than 2,500)

(24) How many teachers are in the program?



THANK YOU FOR YOUR TIME!

PLEASE RETURN THIS QUESTIONNAIRE IN THE ENCLOSED MAILER.

A

UNITED STATES DEPARTMENT OF EDUCATION
INFORMATION QUESTIONNAIRE FOR ADMINISTRATORS

DIRECTIONS:

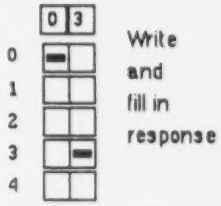
Read each question below. Use a No. 2 pencil.

Fill in the square(s) on the enclosed ORANGE answer sheets which correspond(s) to the answer(s) you select.

Proper Mark

Improper Marks

EXAMPLE



SECTION A

A.1 Which of the following program descriptions applies to your content-ESL program? (PLEASE INDICATE ALL THAT APPLY)

A. EARLY TRANSITIONAL BILINGUAL EDUCATION
Students are mainstreamed into regular classes early (e.g., within three years) on the basis of English proficiency, particularly in listening and speaking

B. LATE TRANSITIONAL BILINGUAL EDUCATION
Students spend up to six years in bilingual education and are mainstreamed only when their English proficiency (listening, speaking, reading, and writing) is sufficient for successful academic achievement

C. MAINTENANCE BILINGUAL EDUCATION
Students develop literacy (reading and writing) in their primary (home) language as well as in English

D. TWO-WAY (DEVELOPMENTAL) BILINGUAL EDUCATION
Students from language minority and majority groups are integrated in classes for content instruction in two languages

E. SHELTERED ENGLISH/SHELTERED INSTRUCTION
Students are segregated for content instruction that is tailored to their levels of English proficiency to enhance comprehension

F. THEMATIC ENGLISH
Students learn English as a second language in thematic (content-oriented) units such as "The Environment"

G. ADJUNCT ENGLISH AND CONTENT INSTRUCTION
Students learn English from one teacher and content from another, but the teachers plan their classes jointly

H. BRIDGE COURSE STRUCTURE
Students are placed in transitional courses which systematically introduce elements of academic content while reinforcing English language skills

I. CONTENT-BASED ESL
Students develop English and content skills and knowledge in classes taught by ESL instructors

J. LANGUAGE SENSITIVE CONTENT INSTRUCTION
Students from language minority and majority groups are integrated in classes for content instruction in English that is sensitive to the language needs of the learners

K. NEWCOMER CENTER
Students who are new to this country are taught English and content before transferring to a regular school

L. Other (PLEASE SPECIFY)

A.2 Which of these describes your role most accurately?
(PLEASE INDICATE ONLY ONE)

A. Principal
B. Assistant principal
C. ESL department chair
D. Subject area department chair
E. School level program coordinator
F. Counselor
G. District supervisor/curriculum specialist
H. Resource teacher
I. Other (PLEASE SPECIFY)

A.3 What was the impetus for creating the content-ESL class(es)?
(PLEASE INDICATE ALL THAT APPLY)

A. Rapid influx of LEP students
B. High drop-out rates among LEP students
C. Low achievement in academic content courses
D. Professional desire to find more effective courses
E. High cost of English as a second language (ESL) classes
F. Desire to integrate students as rapidly as possible
G. Success of such classes in other districts
H. Legal mandate
I. Other (PLEASE SPECIFY)

A.4 Who was most responsible for the design of the content-ESL class(es)?
(PLEASE INDICATE ALL THAT APPLY)

A. Individual teacher(s)
B. Team(s) of teachers
C. Administrators
D. Teachers and administrators
E. Guidance counselor(s)
F. Community members/parents
G. Other (PLEASE SPECIFY)

A.5 Who is most responsible for making decisions about LEP student admission to, placement in, and exit from the content-ESL classes?

A. Individual teacher(s)
B. Team(s) of teachers
C. Administrator(s)
D. Teacher(s) and administrator(s)
E. Guidance counselor(s)
F. Community members/parents
G. Other (PLEASE SPECIFY)

A.6 Is there a specific content-ESL curriculum?

A. YES Go to Question A.7
B. NO Go to Question A.9

A.7 For which content-ESL classes do you have a specific curriculum?

A. Science
B. Mathematics
C. Social Studies
D. Reading
E. Language arts
F. Shop or Practical arts
G. Health, Family life
H. Other (PLEASE SPECIFY)

A.8 Who wrote the content-ESL curriculum?

A. Teacher committee(s)
B. Independent consultant(s)
C. School-based administrator(s)
D. District-level personnel
E. State-level personnel
F. Other (PLEASE SPECIFY)

A.9 How does your school's administration evaluate the progress of the LEP students who are attending content-ESL classes?
(PLEASE INDICATE ALL THAT APPLY)

A. Teacher-made tests and quizzes
B. Grades
C. Standardized tests measuring achievement in academic content
D. Standardized tests measuring language proficiency
E. Oral reports
F. Student projects
G. Compositions/writing samples
H. Portfolios
I. Cooperative assessment (all students in a group receive the same grade for collaborative work)
J. Student self-evaluation
K. Checklists of student performance
L. Attendance tallies
M. Students are not assessed formally
N. Other (PLEASE SPECIFY)

A.10 What support is provided for content-ESL teachers? (PLEASE INDICATE ALL THAT APPLY)

A. Consultant services
B. Supplementary funding
C. Incentive pay
D. Teacher stipends for training
E. Local business support
F. Release time for training, conference attendance, curriculum development, etc.
G. Regular content-ESL staff meetings
H. Scheduled time for planning
I. Staff development for content-ESL staff
J. Instructional materials
K. Special library resources
L. Teacher reference materials
M. Aides, tutors, or paraprofessionals
N. Equipment
O. None of the above

A.11 What types of staff development do the content-ESL teachers participate in? (PLEASE INDICATE ALL THAT APPLY)

A. District/school in-service education sessions
B. District in-service curriculum development
C. State or regional workshops
D. Peer observation
E. Mentoring and coaching
F. Conference attendance
G. University courses
H. Video/TV/telephone/computer instruction
I. None of the above

SECTION B

B.1 How many students are in your school?

B.2 How many students in your school are from families in which the primary (home) language is not English?

B.3 How many limited English proficient (LEP) students are enrolled in content-ESL classes at your school? (See the description on the cover page of the questionnaire.)

SECTION C

C.1 How many regular classroom/content teachers work with LEP students in content-ESL classes?

C.2 How many ESL teachers work with LEP students in content-ESL classes?

C.3 How many bilingual teachers work with LEP students in content-ESL classes?

C.4 How many support/resource teachers (e.g., Chapter 1, special education, reading) work with LEP students in content-ESL classes?

C.5 How many aides, paraprofessionals, or teaching assistants work with LEP students in content-ESL classes?

C.6 How many volunteers work with LEP students in content-ESL classes?

SECTION D

D.1 What percentage of the LEP students in your content-ESL classes is eligible to participate in a free or reduced-price lunch program?

A. 0 - 19.9%
B. 20 - 39.9%
C. 40 - 59.9%
D. 60 - 74.9%
E. 75 - 100%

D.2 List the major primary (home) languages and countries of origin of the LEP students in your content-ESL classes. Identify the percentage of those students each languag group represents. (The total should equal 100%.)

D.3 What subjects or grade levels have you taught and for how many years?

D.4 What language(s) do you know?

Thank you!
Please return the completed answer sheet in the enclosed mailer.

A

UNITED STATES DEPARTMENT OF EDUCATION
INFORMATION QUESTIONNAIRE FOR ADMINISTRATORS

A.1 A B C D E F G H I J K L

A.2 A B C D E F G H I

A.3 A B C D E F G H I

(IF ANSWERING OTHER, PLEASE SPECIFY HERE)

A.4 A B C D E F G

A.5 A B C D E F G

A.6 A B

A.7 A B C D E F G H

A.8 A B C D E F

A.9 A B C D E F G H I J K L M N

A.10 A B C D E F G H I J K L M N O

A.11 A B C D E F G H I

PROPER MARK

A.1
A.2
A.3
A.4
A.5
A.7
A.8
A.9

B.1 B.2 B.3 C.1 C.2 C.3 C.4 C.5 C.6

0 1 2 3 4 5 6 7 8 9

D.1 A B C D E

D.2

Language	Country of Origin	Percentage

D.3

Subject	Grade Level	No. of Years

D.4 Primary (home) language

Other Languages

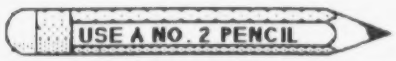
T

UNITED STATES DEPARTMENT OF EDUCATION
INFORMATION QUESTIONNAIRE FOR TEACHERS

DIRECTIONS:

Read each question below. Use a No. 2 pencil.

Fill in the square(s) on the enclosed GREEN answer sheets which correspond(s) to the answer(s) you select.



Proper Mark ■

Improper Marks ☑ ☒ ■

EXAMPLE

	0	3
0	■	
1		
2		
3		■
4		

Write and fill in response

SECTION 1

1.1 How would you describe yourself? (PLEASE INDICATE ONLY ONE)

A. Regular or content-area teacher
B. ESL teacher: pull-out classes
C. ESL teacher: non pull-out classes
D. Bilingual teacher

1.2 Which of these describe(s) your role most accurately? (PLEASE INDICATE ALL THAT APPLY)

A. I teach both content and English simultaneously.
B. I teach content and English, but not at the same time.
C. I teach English, another teacher teaches content, and we plan together on a regular basis.
D. I teach English, another teacher teaches content, but we do not plan together.
E. I teach content, another teacher teaches English, and we plan together on a regular basis.
F. I teach content, another teacher teaches English, but we do not plan together.
G. I teach content; there is a paraprofessional or aide, or volunteer, who teaches English.
H. I teach content, and I send students out for additional help with English.
I. Other (PLEASE SPECIFY)

1.3 What content area(s) do you now teach to LEP students in your content-ESL classes? (PLEASE INDICATE ALL THAT APPLY)

A. Science
B. Mathematics
C. Social studies
D. Language arts
E. Reading
F. Shop or practical arts
G. Health, family life
H. Other (PLEASE SPECIFY)

1.4 How many years have you instructed LEP students in content-ESL classes?

A. Less than 1
B. 1
C. 2
D. 3
E. 4
F. 5
G. 6
H. 7
I. 8
J. 9
K. 10
L. 11 or more

SECTION 2

2.1 How well do the majority of the LEP students in your content-ESL classes read and write their primary (home) language? (PLEASE INDICATE ONLY ONE)

2.2 How well do the majority of the LEP students in your content-ESL classes listen to and speak English? (PLEASE INDICATE ONLY ONE)

2.3 How well do the majority of the LEP students in your content-ESL classes read and write English? (PLEASE INDICATE ONLY ONE)

SECTION 3

3.1 What percentage of the LEP students in your content-ESL classes had no prior schooling?

3.2 What percentage of the LEP students in your content-ESL classes have been educated continuously since the age of 6 or younger?

3.3 What percentage of the LEP students in your content-ESL classes participated in migrant education*?

* Migrant education is for children who accompany their immediate families across district boundaries for purposes of agricultural or fishery employment within a 12-month period.

3.4 What percentage of the LEP students in your content-ESL classes participated in refugee education?

* Refugee education is provided in transit camps for children whose families have fled civil unrest, war, famine, etc. Such camps may or may not be operated by the U.S. government, which may or may not accord the residents in the camps political refugee status.

SECTION 4

4.1 What percentage of the LEP students in your content-ESL classes has had continuous private or public schooling in this country?

A. Less than 25%
B. 25 - 49%
C. 50 - 74%
D. 75 - 100%
E. I don't know.

4.2 On average, how many times per year are the parents of the LEP students in your content-ESL classes invited to meet with the content-ESL staff and faculty? (PLEASE INDICATE ONLY ONE)

A. 0
B. 1
C. 2
D. 3
E. 4
F. 5
G. 6
H. 7
I. 8
J. 9
K. 10
L. 11 or more

4.3 How do you inform parents about the content-ESL classes? (PLEASE INDICATE ALL THAT APPLY)

A. Letters home
B. Printed materials other than letters
C. Orientation meetings
D. Parent-teacher nights
E. Home visits
F. Telephone calls
G. Other (PLEASE SPECIFY)

4.4 What opportunities are there for contact between the LEP students in your content-ESL classes and native English speakers? (PLEASE INDICATE ALL THAT APPLY)

A. Interaction with native English speaking students in your content-ESL classes
B. Organized activities with native English speaking students in the school
C. Conversation with native English speaking partners/buddies/mentors in the school
D. Classroom visits by native English speakers from the community
E. Field trips involving conversation with native English speakers
F. Other (PLEASE SPECIFY)

SECTION 5

5.1 On average, how many hours per day do the LEP students in your content-ESL classes spend in interaction with native English speaking peers at your school?

5.2 On average, how many hours per day do the LEP students in your content-ESL classes spend listening to and speaking English?

5.3 On average, how many hours per day do the LEP students in your content-ESL classes spend in reading and writing English?

5.4 On average, how many hours per day do the LEP students in your content-ESL classes spend on academic tasks such as science or math that require reading and writing in English?

5.5 On average, how many hours per day do your LEP students spend in classes integrating English language skills and academic instruction at your school?

5.6 On average, how many hours per day do your LEP students receive instruction in academic content with primary (home) language support at your school?

5.7 On average, how many hours per day do your LEP students receive academic content in modified or sheltered English at your school?

SECTION 6

How often do you use the following INSTRUCTIONAL APPROACHES in your content-ESL classes?

6.1 Focus on academic English through reading and writing

6.2 Stress on oral communication and communicative activities

6.3 The Natural Approach

6.4 Lessons stressing grammar points

6.5 Cooperative learning

6.6 Daily assessment

6.7 Teacher-student research

6.8 Instruction from a mandated curriculum

6.9 Discovery/inquiry learning

6.10 Computer-assisted instruction

6.11 Variety of tasks during one class period

6.12 Development of strategies for learning and thinking (e.g., strategies for memory, self-evaluation, reasoning)

6.13 Explicit integration of critical thinking skills, academic content, and English

SECTION 7

How often do you use the following ACTIVITIES with the LEP students in your content-ESL classes?

7.1 "Whole language" instruction

7.2 Language experience (LEA)

7.3 Activities determined largely by textbook or textbook series

7.4 Video exercises and aids for language reinforcement

7.5 Language laboratory activities

7.6 Problem-solving activities

7.7 Practice in test-taking skills

7.8 Intensive English language exercises such as drills

7.9 Hands-on activities such as science experiments or vocational training

7.10 Jazz chants, singing, rap and/or similar oral activities

7.11 Extramural activities such as field trips

7.12 Games, role plays, and/or simulations

7.13 Activities using visuals other than videos

7.14 Activities requiring little production (i.e., TPR)

7.15 Process-oriented composition, diary/journal writing and/or other forms of free writing

7.16 Systematic pronunciation exercises

7.17 Structured oral practice (e.g., debates)

7.18 Extensive reading/reading for pleasure

7.19 Structured reading practice or phonics

SECTION 8

How often do you use the following MODIFICATIONS to make academic content comprehensible to the LEP students in your content-ESL classes?

8.1 Adapt activities to students' English language needs

8.2 Integrate four skills (listening, speaking, reading, writing)

8.3 Focus on student awareness of process and/or objectives

8.4 Pace to accommodate the needs of individual students

8.5 Use a variety of student groupings

8.6 Plan lessons with attention to diverse learning styles among students

8.7 Use visuals other than video

8.8 Use contextualized reinforcement of English

8.9 Use a variety of tasks during one class period

8.10 Give systematic feedback on student performance

8.11 Refer to concrete objects

8.12 Distribute presentation outlines, notes, and/or handouts

8.13 Make few references to U.S. culture and jokes

8.14 Take advantage of teachable moments

8.15 Write what you say on the board or newsprint

8.16 Organize content into smaller chunks per unit

8.17 Simplify content

8.18 Frequently check comprehension through questions

8.19 Extend exposition or concept development

8.20 Read aloud from the textbook

8.21 Make references to the students' primary culture

8.22 Have frequent question-and-answer sessions

SECTION 9

How often do you use the following MODIFICATIONS IN LANGUAGE to make academic content comprehensible to the LEP students in your content-ESL classes?

9.1 Speak more slowly

9.2 Enunciate more clearly

9.3 Use limited vocabulary

9.4 Use fewer words

9.5 Use definitions or examples frequently

9.6 Use cognates [English words related to words in a student's native language]

9.7 Refer to concrete objects

9.8 Use shorter, simpler sentences

9.9 Speak louder

9.10 Use less variety in verb tenses

9.11 Use fewer idioms (untranslatable expressions)

9.12 Stress key words in speech

9.13 Talk around the topic

9.14 Speak in sentence fragments (telegraphese)

9.15 Use repetition

9.16 Use frequent oral spelling

9.17 Explain in a student's native language

9.18 Paraphrase

9.19 Write what you say on the board or newsprint

9.20 Occasionally translate a difficult word

SECTION 10

How often do you use the following CLUES or AIDS to enhance understanding by the LEP students in your content-ESL classes?

10.1 Gestures

10.2 Facial expressions

10.3 Props or objects from the real world (realia)

10.4 Demonstrations

10.5 Graphs, charts, graphics and/or graphic organizers

10.6 Improvised drawings

10.7 Textbooks

10.8 Authentic print materials

10.9 Word banks, word charts, and/or word lists

10.10 Overhead transparencies

10.11 Bulletin boards

10.12 Videos or films

10.13 Audio-cassettes

10.14 Semantic mapping (netting, clustering, webbing)

SECTION 11

11.1 Do you create activities or materials for the LEP students in your content-ESL classes?

A. YES
B. NO

11.2 What published material do you use with the LEP students in your content-ESL classes? (PLEASE INDICATE ALL THAT APPLY)

A. Same textbooks and workbooks as used in regular, non-ESL classes
B. Basic skills or remedial materials
C. ESL textbooks and workbooks published to fit the language proficiency level of the students
D. Textbooks and workbooks modified for these classes
E. Textbooks and workbooks designed for these classes
F. None of the above

11.3 How do you evaluate the LEP students' progress in your content-ESL class(es)? (PLEASE INDICATE ALL THAT APPLY)

A. Periodic teacher-made paper-and-pencil tests
B. Quizzes
C. Informal questioning
D. Standardized tests measuring achievement in academic content
E. Standardized tests measuring reading achievement
F. Standardized tests measuring language proficiency
G. Simulations or oral reports
H. Student projects
I. Compositions
J. Journals
K. Portfolios
L. Cooperative assessment (all students in a group receive the same grade for collaborative work)
M. Student self-evaluations
N. Checklists of student performance
O. Attendance tallies
P. Students are not assessed formally
Q. Other (PLEASE SPECIFY)

11.4 Which of the following best describes your educational attainment? (PLEASE INDICATE ONLY ONE)

A. Associate degree
B. Bachelor's degree
C. Bachelor's degree and additional credits
D. Master's degree
E. Master's degree and additional credits
F. Doctorate

11.5 Is certification (a credential or endorsement) in a content area (e.g., mathematics, science, etc.) required to teach content-ESL at your school?

A. YES
B. NO

11.6 Is ESL certification (a credential or endorsement) required to teach content-ESL?

A. YES
B. NO

11.7 Do you have certification (a credential or endorsement) in TESOL (ESL, TESL, or LDS)?

A. YES
B. NO

11.8 If yes, PLEASE INDICATE ALL THAT APPLY.

A. ESL
B. TESL
C. LDS (Language Development Specialization)

11.9 What professional preparation or staff development in content-ESL have you had? (PLEASE INDICATE ALL THAT APPLY)

A. Undergraduate course(s)
B. Graduate course(s)
C. TV course(s)
D. In-service program(s)
E. Other (PLEASE SPECIFY)

SECTION 12

12.1 What subjects or grade levels have you taught and for how many years?

12.2 What language(s) do you know?

SECTION 13

13.1 Have you ever taught grammar-based ESL?

A. YES Go to Question 13.2
B. NO You are finished!

13.2 Do LEP students in content-ESL classes learn English listening and speaking skills faster than in conventional grammar-based classes?

13.3 Do LEP students in content-ESL classes learn English reading and writing skills faster than in conventional grammar-based classes?

13.4 Do LEP students in content-ESL classes improve their academic achievement in content areas (e.g., mathematics, science, social studies) faster than in conventional grammar-based classes?

THANK YOU!

Please return the completed answer sheet in the enclosed mailer.

UNITED STATES DEPARTMENT OF EDUCATION
INFORMATION QUESTIONNAIRE FOR TEACHERS

T

1.1 A B C D

1.2 A B C D E F G H I

1.3 A B C D E F G H

1.4 A B C D E F G H I J K L

(IF ANSWERING OTHER, PLEASE SPECIFY HERE) →

A.2

A.3

	VERY WELL	MODERATELY	ADEQUATELY	POORLY	NOT AT ALL
2.1					
2.2					
2.3					

	0-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100
3.1										
3.2										
3.3										
3.4										

4.1 A B C D E

4.2 A B C D E F G H I J K L

4.3 A B C D E F G

4.4 A B C D E F

(OTHER, SPECIFY HERE) →

4.3

4.4

	0 1 2 3 4 5 6
5.1	
5.2	
5.3	
5.4	
5.5	
5.6	
5.7	

	ALWAYS	OFTEN	SOMETIMES	RARELY	NEVER
6.1					
6.2					
6.3					
6.4					
6.5					
6.6					
6.7					
6.8					
6.9					
6.10					
6.11					
6.12					
6.13					

	ALWAYS	OFTEN	SOMETIMES	RARELY	NEVER
7.1					
7.2					
7.3					
7.4					
7.5					
7.6					
7.7					
7.8					
7.9					
7.10					
7.11					
7.12					
7.13					
7.14					
7.15					
7.16					
7.17					
7.18					
7.19					

PROPER MARK

	ALWAYS	OFTEN	SOMETIMES	RARELY	NEVER
8.1					
8.2					
8.3					
8.4					
8.5					
8.6					
8.7					
8.8					
8.9					
8.10					
8.11					
8.12					
8.13					
8.14					
8.15					
8.16					
8.17					
8.18					
8.19					
8.20					
8.21					
8.22					

	ALWAYS	OFTEN	SOMETIMES	RARELY	NEVER
9.1					
9.2					
9.3					
9.4					
9.5					
9.6					
9.7					
9.8					
9.9					
9.10					
9.11					
9.12					
9.13					
9.14					
9.15					
9.16					
9.17					
9.18					
9.19					
9.20					

	ALWAYS	OFTEN	SOMETIMES	RARELY	NEVER
10.1					
10.2					
10.3					
10.4					
10.5					
10.6					
10.7					
10.8					
10.9					
10.10					
10.11					
10.12					
10.13					
10.14					

11.1 A B C D E F G H I J K L

11.2 A B C D E F G H I

11.3 A B C D E F G H I J K L M N O P Q

11.4 A B C D E F G H I

11.5 A B (IF ANSWERING OTHER, PLEASE SPECIFY HERE) →

11.6 A B

11.7 A B

11.8 A B C

11.9 A B C D E

11.3

11.9

12.1 Subject Grade Level No. of Years

12.2 Primary (home) language

Other Languages

13.1 A B

13.2

13.3

13.4

BEST COPY AVAILABLE

CONTENT-ESL POST-OBSERVATION CHECKLIST

Teacher(s) _____ Date _____

School _____ Grade _____

Time _____ Class length _____ Observation # _____

Observer _____ No. students _____ (_____girls _____boys)

ENVIRONMENT

(1) CONTENT AREA

- ○ reading/English language arts
- ○ mathematics
- ○ ESL
- ○ social studies
- ○ science
- ○ other _____

(2) ROOM ARRANGEMENT

- ○ desks facing the front
- ○ semi-circle or U shape or cluster
- ○ patterned clusters
- ○ scattered clusters
- ○ rows facing each other
- ○ other _____

(3) MEDIA

- ○ three-dimensional objects (globes, maps, etc.)
- ○ print-rich bulletin boards
- ○ student work displayed (on walls, tables, etc.)
- ○ bookshelves with textbooks
- ○ bookshelves with supplementary readers
- ○ bookshelves with trade books
- ○ bookshelves with reference books
- ○ learning centers
- ○ computer stations
- ○ television monitor/VCRs
- ○ other _____

(4) LANGUAGE ACCOMMODATION

- ○ sheltered
- ○ non-sheltered

(5) INSTRUCTOR(S): Number

- ○ teacher only
- ○ teacher and one other instructor
- ○ teacher and aide
- ○ teacher and volunteer
- ○ no teacher: aide only
- ○ other_____

(6) INSTRUCTOR(S): Type

- ○ ESL
- ○ content
- ○ reading/English language arts

(7) LANGUAGE: Teacher(s) (Complete for lead teacher)

- ○ spoke only English
- ○ spoke English more than another language
- ○ spoke two languages in equal measure
- ○ spoke another language more than English
- ○ did not speak at all

(8) LANGUAGE: Aide(s) (Complete for chief aide)

- spoke only English
- spoke English more than another language
- spoke two languages in equal measure
- spoke another language more than English
- did not speak at all

(9) LANGUAGE: Students

- spoke only English
- spoke English more than another language
- spoke two languages in equal measure
- spoke another language more than English

(10) SPEECH: Percentage of class time [instructor(s) and students)]

	Instructor(s)	Students
20 % or less	_____	_____
50%	_____	_____
60% or more	_____	_____
80% or more	_____	_____

(11) SPEECH: Dominance

- instructor did most of the talking
- distribution was about 50 - 50
- students did most of the talking
- no one spoke

ACTIVITIES (Each activity listed as a, b, c, d, e..)

a. _____

b. _____

c. _____

d. _____

e. _____

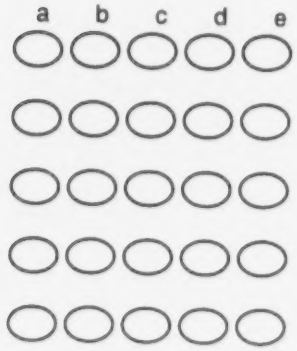
(12) GROUP(S): Size

a	b	c	d	e	
○	○	○	○	○	whole class
○	○	○	○	○	small groups: varied size
○	○	○	○	○	small groups: 6 or more
○	○	○	○	○	small groups: 5 or fewer
○	○	○	○	○	pairs
○	○	○	○	○	individuals

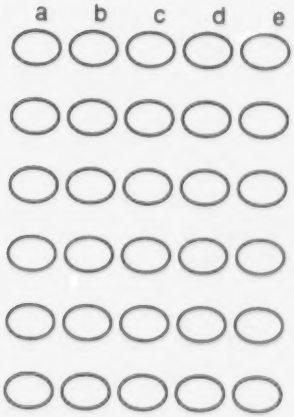
(13) TASK(S): Focus

a	b	c	d	e	
○	○	○	○	○	reading/English language arts
○	○	○	○	○	mathematics
○	○	○	○	○	ESL
○	○	○	○	○	social studies
○	○	○	○	○	science
○	○	○	○	○	other _____

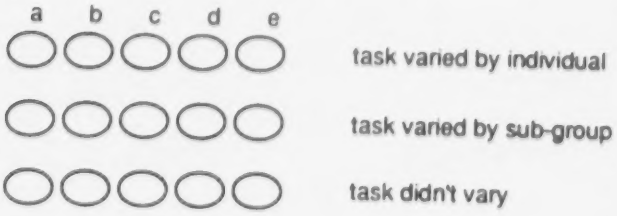
(14) TASK(S): Skill(s) Required (Indicate all that apply)



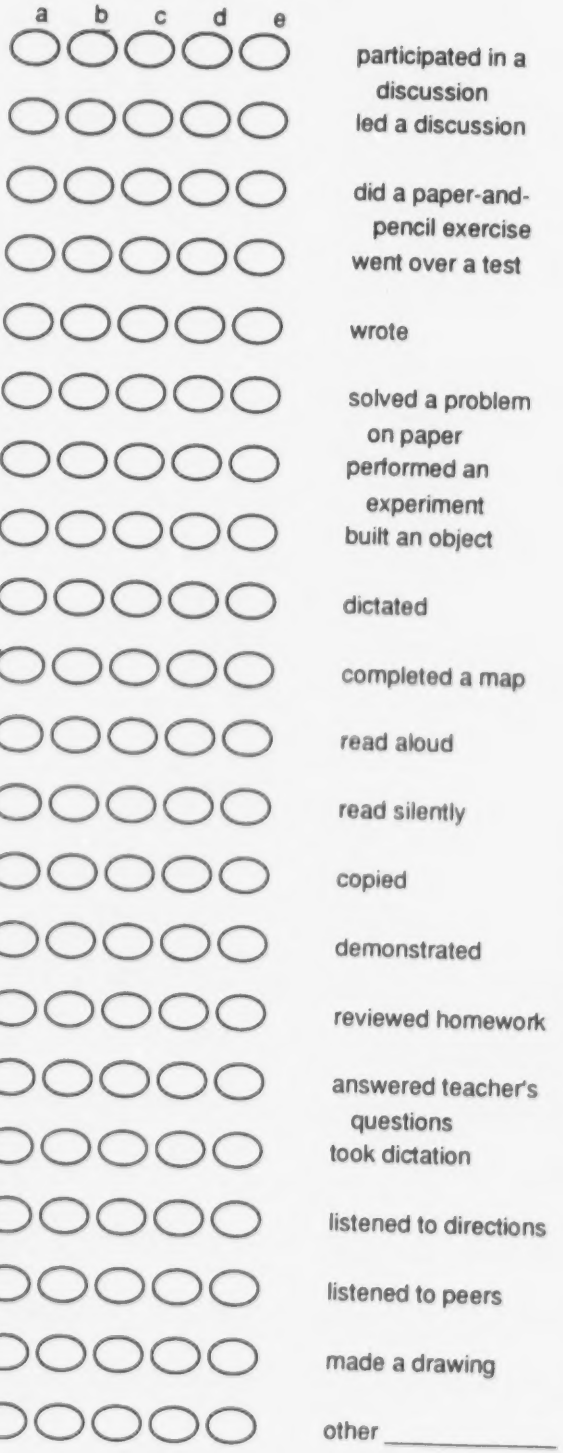
(15) TASK(S): Structure (student work)



(16) TASK(S): Variety



(17) BEHAVIOR: Student(s)



(18) BEHAVIOR: Teacher(s)

a	b	c	d	e	
○	○	○	○	○	participated in a discussion
○	○	○	○	○	led a discussion
○	○	○	○	○	made a drawing
○	○	○	○	○	mapped or webbed
○	○	○	○	○	went over a test
○	○	○	○	○	went over homework
○	○	○	○	○	wrote
○	○	○	○	○	solved a problem
○	○	○	○	○	performed an experiment
○	○	○	○	○	built an object
○	○	○	○	○	dictated
○	○	○	○	○	recorded dictation
○	○	○	○	○	completed a map
○	○	○	○	○	read aloud
○	○	○	○	○	read silently
○	○	○	○	○	reported
○	○	○	○	○	demonstrated
○	○	○	○	○	other _____

(19) MATERIALS: Type

a	b	c	d	e	
○	○	○	○	○	texts
○	○	○	○	○	trade books
○	○	○	○	○	workbooks, worksheets
○	○	○	○	○	realia (i.e., objects not normally instructional)
○	○	○	○	○	visuals (e.g., drawings, photos, maps, etc.)
○	○	○	○	○	film/videos (e.g., T V, cassettes, etc.)
○	○	○	○	○	written display (e.g., chalkboard, etc.)
○	○	○	○	○	tabulae rasae
○	○	○	○	○	journals
○	○	○	○	○	graphic organizers
○	○	○	○	○	manipulatives (e.g., board games, etc.)
○	○	○	○	○	audios (e.g., radio, cassettes, etc.)
○	○	○	○	○	computer/interactive video
○	○	○	○	○	satellite/distance learning materials
○	○	○	○	○	other _____

(20) MATERIALS: Source

a	b	c	d	e	
○	○	○	○	○	commercial
○	○	○	○	○	teacher-program made
○	○	○	○	○	student-made
○	○	○	○	○	other _____

(21) MATERIALS: Accommodation

a b c d e

adapted or simplified

unadapted

graded material for language development

(22) MATERIALS: Audience

a b c d e

LEP-specific

Non LEP-specific

INSTRUCTION

General characteristics: Did the teacher. . . ?

Select one: a. Yes, b. No, c. indeterminable

a b c

(23) Vary activities

(24) Vary instructional materials

(25) Put the students at ease

Give examples.

a b c

(26) Help students feel comfortable with taking risks/.making errors

Give examples.

a b c

(27) Encourage multiple answers

(28) Present concepts in cognitively and linguistically appropriate forms

Give examples.

a b c

(29) Incorporate routine procedures

(30) Sequence the lesson clearly/appropriately

(31) Pace the lesson effectively

INSTRUCTION

Specific characteristics: How often did the teacher. . .?
Select one: a.. Frequently, b. Sometimes, c. Seldom, d. Never

a b c d

(32) Adapt English

(33) Check (aural) comprehension

Give examples.

a b c d

(34) Stress accuracy in English

(35) Ask students to modify their utterances

Give examples.

a b c d

(36) Correct/elicit corrections of student utterances

Give examples.

a b c d

(37) Repeat student utterances

(38) Write student utterances on the chalkboard

(39) Drill

(40) Focus on grammar

(41) Provide grammatical explanations

(42) Focus on vocabulary

(43) Require reading

(44) Stress decoding

(45) Require writing (e.g., copying, fill-ins, short answers, etc.)

Give examples.

Give examples.

a b c d

(46) Revise/edit student writing/composition

DISCOURSE

a b c d

(47) Require speaking

(48) Require use of English

(49) Respond in English to questions posed in L1

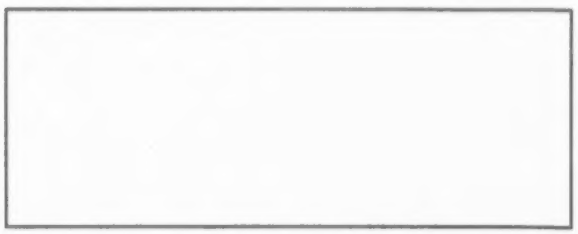
(50) Use students' L1(s)

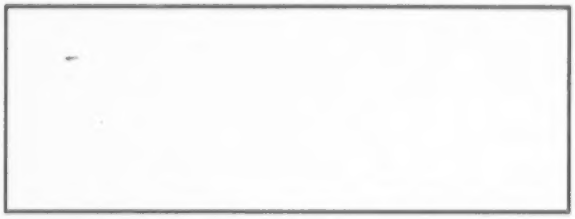
(51) Respond in L1 to questions posed in L1

(52) Paraphrase student utterances

(53) Extend student utterances

Give examples.





a b c d

(54) Stress general reading comprehension

(55) Require composition (e.g., outlining, note-taking, etc.)

(56) Contextualize (e.g., pictures, stories, classroom experiences)

Give examples.

a b c d

(57) Question students

(58) Use lower order questions (e.g., recall)

(59) Use information questions (i..e., questions to which the teacher doesn't know the answer)

a b c d

(60) Use higher order questions (e.g., application, analysis, synthesis, opinion, etc.)

Give examples.

a b c d

(61) Encourage questions and comments

(62) Attend to questions and comments

CONTENT

a b c d

(63) Integrate language and content

(64) Enable students to understand concept(s)

(65) Involve students in critical thinking

Give examples.

a b c d

(66) Exhibit a command of the material

METHODOLOGY

a b c d

(67) Use an appropriate sequencing strategy in selecting activities

(68) Use visuals

(69) Use manipulatives

(70) Use gestures

(71) Require movement

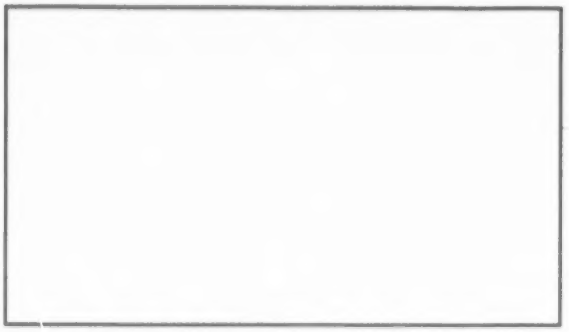
(72) Evoke students' prior knowledge

(73) Pre-teach vocabulary

(74) Adjust concept presentation to accommodate students' conceptual level

(75) Direct attention to strategies of study skills

Give examples.

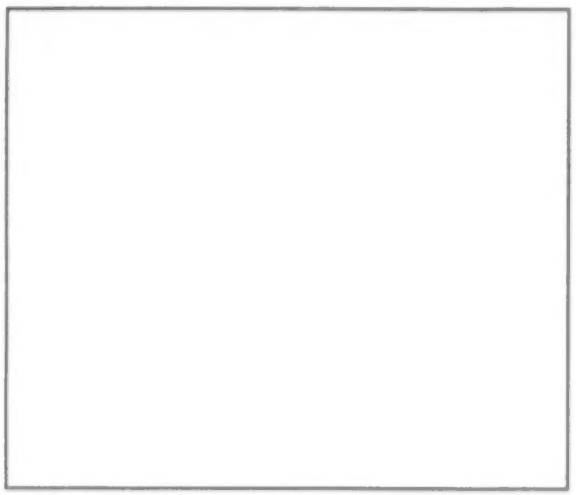


a b c d

(76) Review instruction

(77) Encourage collaboration

Give examples.



a b c d

(78) Interrupt for management

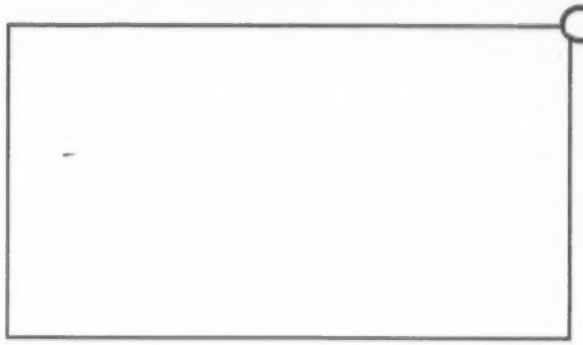
(79) Interrupt for discipline

(80) Engage students' interest

(81) Encourage students

(82) Communicate high expectations

Give examples.



a b c d

(83) Monitor student progress

(84) Provide positive feedback on student performance

(85) Provide negative feedback on student performance

(86) Mention goals

(87) Elicit/make comments on the process

LEARNER BEHAVIOR:

How often did the student(s). . .?

Select one: a. Frequently, b. Sometimes, c. Seldom, d. Never

a b c d

(88) Answer teacher's questions

(89) Answer another student's questions

(90) Ask clarification questions

(91) Ask information questions

(92) Extend another student's contribution

(93) Correct/modify another student's contribution

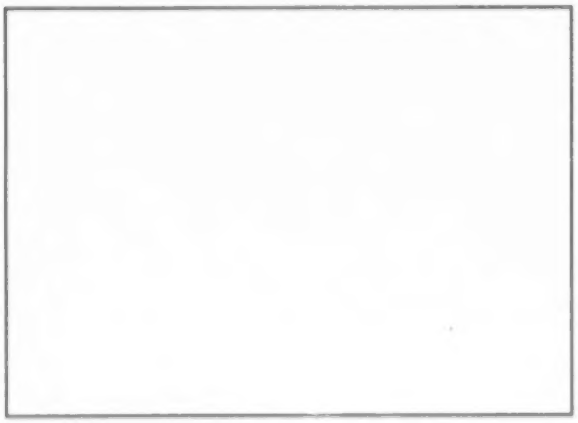
a b c d

(94) Participate in task-related conversations with peer(s)

(95) Initiate non-task-related conversations with peer(s)

(96) Suggest alternative hypotheses or predictions

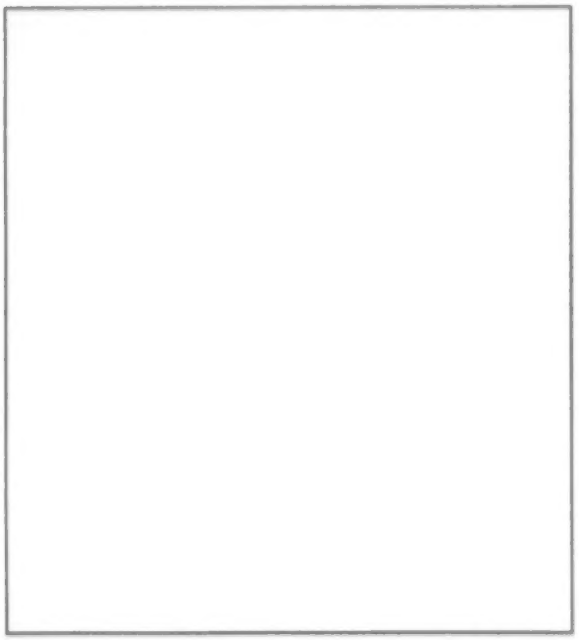
Give examples.



a b c d

(97) Initiate topics

Give examples.



Appendix V

Cover Letters and Attachments

CAL Center for Applied Linguistics

October 30, 1992

Dear Colleague:

We need your help!

The Center for Applied Linguistics (CAL) is currently conducting an OBEMLA-funded study of content-ESL programs across the United States. Its purpose is to identify the program and classroom variables that account for their effectiveness.

This study is not evaluative. Rather, we are interested in finding out more about the number and range of content-ESL programs that are already doing the job. Strange as it may seem, no similar study has ever been undertaken.

Now a word about what we mean by content-ESL. We already know that such efforts vary widely:

- You may be the only one at your school who is teaching students whose proficiency in English is limited (LEPs). Or, you may be in a large department. You may even be the department head.

- You may be a teacher of English as a second language, with or without formal training, or you may be a regular classroom teacher, or a teacher of math, social studies, science, physical education, etc., who is working with LEPs.

- You may be working at the elementary, intermediate or high school level.

In other words, we are interested in you if you are teaching or administering classes in which any portion of the regular curriculum is taught to LEPs in English.

Now here comes the pitch.

If you are working in this field, please take **ten minutes** to fill out the attached questionnaire. We know that everyone is busy at this time of the school year, but your timely response will help us achieve, for the first time, a comprehensive picture of content-ESL programs across the country.

Your voluntary participation is very much appreciated. If you have any questions, please don't hesitate to call the project at (202) 429-9292.

This project has been funded at least in part with Federal Funds from the U.S. Department of Education under contract number T291004001. The content of this publication does not necessarily reflect the views or policies of the U.S. Department of Education, nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government.

1118 22nd Street, N.W. Washington, D.C. 20037 (202) 429-9292 Fax (202) 429-9766

CAL

Center for
Applied
Linguistics

September 9, 1993

As you know, the Center for Applied Linguistics (CAL) is conducting a survey of content-ESL programs across the United States. Its purpose is to identify content-ESL program characteristics that account for the effectiveness of these programs.

Last spring, you or one of your colleagues were mailed an Information Questionnaire for Administrators and a Questionnaire for Teachers. We understand that you may have misplaced or not received these questionnaires, so we are sending you replacement questionnaires. Your participation is very important, and we ask that you respond. **Please just return the answer sheets.** We are grateful for your cooperation.

We are interested in your information because you are associated in some capacity with a class, a group of classes, or a department in which **subject matter instruction** in **English** is modified in some fashion to accommodate students whose proficiency in English is limited (**LEPs**). Whether the subject matter is math, social studies, science, vocational arts, physical education, or other subject areas, we are interested in information about your program. You may be an ESL teacher, a regular classroom teacher, a teacher certified in one or more subject matter areas, or you may have an exclusively administrative role to play.

Now, here comes the confusing part.

If you are a **teacher**, please complete the Questionnaire for Teachers **only** if your name comes last on an alphabetized list of the content-ESL teachers at your school. Otherwise, pass the questionnaire on to that teacher and give the Questionnaire for Administrators to an administrator at your school who is familiar with the content-ESL classes.

If you are an **administrator**, kindly fill out the Questionnaire for Administrators and give the Questionnaire for Teachers to that teacher whose name comes last on an alphabetized list of the content-ESL teachers.

If you fill both roles, please fill out **both** questionnaires.

Your voluntary participation is very much appreciated. The information you provide is strictly confidential and will help us immensely in defining the scope and variety of content-ESL practices. Use the enclosed mailer to return the questionnaires to us **September 30, 1993.** If you have any questions, do not hesitate to contact us at (202) 429-9292; [FAX (202) 429-9766].

This project has been funded at least in part with Federal Funds from the U.S. Department of Education under contract number T291004001. The content of this publication does not necessarily reflect the views or policies of the U.S. Department of Education, nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government.

BEST COPY AVAILABLE

1118 22nd Street, N.W., Washington, D.C. 20037 (202) 429-9292 Fax: (202) 659-56

October 1, 1993

Win a TESOL or NABE 1994 conference registration!

As you know, the Center for Applied Linguistics (CAL) is conducting a survey of content-ESL programs to identify those program characteristics that account for their effectiveness.

All answer sheets returned by **November 5, 1993** will become eligible for the **Content-ESL Lottery: pre-paid 1994 conference registration for either TESOL or NABE.** Winners will be contacted by telephone.

We are interested in your information because you are associated in some capacity with a class, a group of classes, or a department in which **subject matter instruction** in **English** is modified in some fashion to accommodate students whose proficiency in English is limited (**LEPs**). Whether the subject matter is math, social studies, science, vocational arts, physical education, or some other subject area, we are interested in information about your program. You may be an ESL teacher, a regular classroom teacher, a teacher certified in one or more subject matter areas, or you may have an exclusively administrative role to play.

Now, here comes the confusing part.

If you are a **teacher**, please complete the Questionnaire for Teachers **only** if your name comes last on an alphabetized list of the content-ESL teachers at your school. Otherwise, pass the questionnaire to that teacher and give the Questionnaire for Administrators to an administrator at your school who is familiar with the content-ESL classes.

If you are an **administrator**, kindly fill out the Questionnaire for Administrators and give the Questionnaire for Teachers to that teacher whose name comes last on an alphabetized list of the content-ESL teachers.

If you fill both roles, please fill out **both** questionnaires.

Your voluntary participation is very much appreciated. The information you provide is strictly confidential and will help us immensely in defining the scope and variety of content-ESL practices. Use the enclosed mailer to return **only** the **answer sheets** to us.

If you have any questions, contact us at (202) 429-9292; [FAX (202) 429-9766].

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OMB Approval No: 1885-0525
Expiration Date: September 30, 1993

United States Department of Education
Content-ESL Identification Survey

If your school has a content-ESL program that conforms to the following description, please fill out this questionnaire; otherwise, please return the blank questionnaire.

There are one or more classes in which the integration of ESL and subject matter (content) learning takes place. These classes may merely make content instruction in English more comprehensible, or they may aim at systematic integration. They may be taught by ESL and/or content teachers with or without the use of a student's primary (home) language. Administratively, they may form part of a larger structure, such as a bilingual or ESL program, or operate autonomously.

Insert the questionnaire in the enclosed mailer and return it by November 20, 1992 to:

Content-ESL Research Project
Center for Applied Linguistics
1118 22nd Street, NW
Washington, DC 20037

Public reporting for this collection of information is estimated to average ten minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the U.S. Department of Education, Information Management and Compliance Division, Washington, DC 20202-4651; and to the Office of Management and Budget, Paperwork Reduction Project, 1885-NEW, Washington, DC 20503.

Appendix VI

Script Used in Telephone Survey of Random Sample

Hello. My name is _____ and I'm calling from the Center for Applied Linguistics in Washington, D.C. CAL is a non-profit educational research foundation that is involved with issues concerning language. At this time, CAL is conducting a study of content-ESL programs across the United States for the U.S. Department of Education.

A content-ESL program is one class or several classes in which students of limited English proficiency receive instruction in such subjects as mathematics, science, or social studies in English. This instruction may be provided by English as a second language (ESL) teachers, bilingual education teachers, or regular subject matter teachers who adjust the language of their presentations to make them comprehensible to these students.

In an effort to identify the number of content-ESL programs in the United States, we are conducting this random telephone survey of the country's 120,000 public schools. Your school is part of our sample. I have some quick questions to ask you and will need only a minute of your time.

1. What grades are in your school?
   pre-K 1 2 3 4 5 6 7 8 9 10 11 12

2. Do you have a content-ESL program at your school?
   Yes No

3. If you have a content-ESL program, from which of these grades are the students in the program drawn?
   pre-K 1 2 3 4 5 6 7 8 9 10 11 12

4. Are there at least 15 students in the program?

Thank you very much for your help.

Appendix VII

Open-Ended Questionnaire Items

Summary of Responses to InfoQ:A Items with Open-ended Options

A.1 Which of the following program descriptions applies to your content-ESL program?

Adult ESL (AD)
Pull out program (PU)
Special/Alternative program (SP)

A.2 Which of these describes your role most accurately?
County coordinator/Level (CY)
Dean/Director of Instruction (DE)
Federal Program Director (FE)
Parent Involvement Specialist (PA)
Title VII Coordinator/staff (T7)

A.4 Who was most responsible for the design of the content-ESL class(es)?

Bilingual Coordinator/Department/Teacher (BI)
District level/Central office/Coordinator (DI)

A.5 Who is most responsible for making decisions about LEP student admission to, placement in, and exit from the content-ESL classes?

Assessment committee (Language proficiency) (AS)
Bilingual Coordinator/Department/Teacher (BI)
District level/Central office/Coordinator (DI)
Law/Regulations (LA)
Test (TE)

A.7 For which content-ESL classes do you have a specific curriculum?

Career education (CA)
Consumer education (CE)
Typing/Computer (TY)

A.8 Who wrote the content-ESL curriculum?

ESL curriculum/Committee (ES)
Publisher (PB)

A.9 How does your school's administration evaluate the progress of the LEP students who are not attending content-ESL classes?

Conferences/Meetings (CO)
Report cards (RE)

Summary of Responses to InfoQ:T Items with Open-ended Options

1.2 Which of these describe(s) your role most accurately?

Guidance counseling (GU)
Resource teacher (RT)

1.3 What content area(s) do you now teach to LEP students in your content-ESL classes?

Art (AR)
Career education (CA)
Communication (CM)
Computers (CP)
Curriculum writing (CW)
Economics (EC)
ESL (ES)
Foreign language (FO)
Home economics (HE)
Music (MU)
Physical education (PE)
Radio extension course (RA)
Reading (RD)
Spelling (SP)
Typing (TY)

4.3 How do you inform parents about the content-ESL classes?

Adult ESL (AD)
Counseling (CN)
Family center (Activities) (FC)
LEP meetings (LM)
Night school (NS)
Parent advisory committee (PA)
Parent classroom participation (PC)
Parent groups (PG)
Pick up/Drop off (PI)
Registration (RG)
Recognition party (RP)

4.4 What opportunities are there for contact between the LEP students in your content-ESL classes and native English speakers?

Family center (Activities) (FC)
Government (GO)
Group skills through cooperative learning (GR)
Pot luck dinners (PL)
Regular class (RC)
Extracurricular activities (EX)
Tutor and teacher (TT)

11.3 How do you evaluate the LEP students' progress in your content-ESL classes?

Audiotapes (AU)
Behavior (BE)
Computer testing (CT)
ESL testbook test
Team evaluation (EV)
Homework (HO)

Observation (OB)
Oral language assessment (OR)
Report cards/Progress reports (RE)

11.9 What professional preparation or staff development in content-ESL have you had?

Conference (CO)
Institute abroad (IA)
Summer institute (SU)

Summary of Responses to POC Items with Open-ended Options

ENVIRONMENT

(1) CONTENT AREA
- Art (ART)
- Career education ((CAR)
- Graphics (GRA)
- Health (HLH)
- Home economics (HEC)
- Navajo (NAV)
- Spanish (SPN)
- Spelling (SPL)
- Technology (TEC)

(2) ROOM ARRANGEMENT
- Circle (CIR)

(3) MEDIA
- Audio equipment (AUD)
- Student bins/Cabinets (BIN)
- Chart (CHA)
- Clock/Time (CLO)
- Colored pictures (COL)
- Filing cabinet (FIL)
- Film strip projector (FLM)
- Learning kits (LEA)
- Library (LIB)
- Microscope (MIC)
- Overhead projector (OHP)
- Piano (PIA)
- Screen (SCR)
- Student-made machines/Catapults (SMA)
- Sink (SNK)
- Table (TAB)
- Time Line (TML)
- Toys/Stuffed animals/Play kitchen (TOY)
- Visuals (map, poster) (VIS)

(5) INSTRUCTOR(S): Number
- Counselor (CNS)
- 3 teachers, 3 aides (SIX)
- Student teacher (STU)
- 4 teachers (TFO)
- Teacher, aide, student teacher (THR)
- Teacher, student teacher (TST)
- 2 teachers, student teacher (TTS)
- 2 aides (TWO)

ACTIVITIES

(13) TASK(S): Focus
- Announcements (ANN)
- Free choice (FRE)
- Game (GAM)
- Group problem solving (GRP)
- Literacy/Literature (LIT)
- Motor coordination (MCD)
- Oral activity (ORA)
- Singing/Dancing (SIN)
- Test (TES)

(14) TASK(S): Skill(s) required
Motor coordination (MCD)
Repeated (REP)
Reviewed (REV)
Socialization (SOC)

(15) TASK(S): Structure (student work)
Collective (CLL)
Independent, cooperative & evaluative (ICE)

(17) BEHAVIOR: Student(s)
Corrected exercise (COR)
Evaluated peer work (EVA)
Planned financial & money-raising ideas (FIN)
Listened to recording (LIR)
Listened to story (LIS)
Literacy/Literature (LIT)
Recitation (REC)
Student government (STG)
Watched T.V. (WTV)

(18) BEHAVIOR: Teacher(s)
Aided students/Helped individually (AID)
Assessments (ASS)
Chalkboard/Wrote on chalkboard (CHL)
Defined (DEF)
Drill (DRI)
Explained with visuals (EXP)
Instructed students (INS)
Used pictures (PIC)
Monitored progress (PRO)
Questions (asked/answered) (QUE)
Summarized (SUM)

(19) MATERIALS: Type
Authentic print material (APM)
Clay (CLA)
Crayons (CRA)
Graphics equipment (GRE)
Kitchen equipment (KIT)
Newspaper (NEW)
Notebook (NTB)
Newsletter (NWS)
Science equipment (SCI)
Self/Teacher (SEL)
State material (STA)
Typewriter (TYP)

(20) MATERIALS: Source
Realia (REA)

Appendix VIII

Item Level Descriptive Statistics from Three Questionnaires and Post-Observation Checklist

IDENTIFICATION QUESTIONNAIRE

NOTE: Summaries are given only for items that are relevant to study questions.

(1) What grades are included in your school's content-ESL classes?

Grade	N	%	Grade	N	%
PK	132	8%	6	634	39%
K	743	46%	7	478	29%
1	819	51%	8	468	29%
2	826	51%	9	464	29%
3	827	51%	10	445	28%
4	797	49%	11	418	26%
5	780	48%	12	407	25%

(2) Which of the following label(s) fit(s) your content-ESL program? (PLEASE INDICATE ALL THAT APPLY)

	N	%
Content-based ESL	1084	67%
Sheltered content classes	697	43%
Regular classes with some attention to LEP needs	689	43%
Other (PLEASE SPECIFY)	275	17%

(3) What subject matter areas are included in this instruction? (PLEASE INDICATE ALL THAT APPLY)

	N	%
Science	1143	71%
Math	1128	70%
Social Studies	1217	75%
Language arts/reading	1451	90%
Other (PLEASE SPECIFY)	337	21%

(4) Who provides the instruction in these classes? (PLEASE INDICATE ALL THAT APPLY)

	N	%
Regular classroom/ content teachers	950	59%
ESL teachers	1066	66%
Bilingual teachers	723	45%
Support teachers	231	14%
Bilingual aides and other aides	870	54%
Assistants and/or volunteers	211	13%

(5) Have most teachers involved in the program received specialized pre- or in-service training in content-ESL?

	N	%
Yes	1297	80%
No	306	19%
No response	18	1%

(6) How many students are being served by the content-ESL program at present?

	N	%
25 or fewer	351	22%
26 to 50	312	19%
51 to 100	341	21%
101 to 150	197	12%
More than 150	405	25%
No response or multiple	16	1%

(7) What is the average class size in the program?

	N	%
5 or fewer	200	12%
6 - 15	373	23%
16 - 20	242	15%
21 - 25	415	27%
26 - 50	349	22%
No response or multiple	42	3%

(8) How long has the program been in operation?

	N	%
Less than one year	123	8%
One - two years	258	16%
Three - four years	428	26%
Five - six years	181	11%
More than six years	592	37%
No response or multiple	39	2%

(9) How is the program funded? (PLEASE INDICATE ALL THAT APPLY)

	N	%
Federal funds (e.g., Title VII)	1128	70%
State funds	880	54%
District funds	992	61%
Other sources (PLEASE SPECIFY)	85	5%

(10) What level of proficiency in English, if any, is required for participation?

	N	%
There is no requirement	1282	79%
Students should know basic English	151	9%
They should be at an intermediate level	62	4%
They should be highly proficient listeners/ speakers	5	<1%
They should read and write academic English as well as listening and speaking well	16	1%
No response or multiple	105	7%

(11) Whether you require minimal proficiency for participation or not, what percent of the LEP students in your program are of low, medium, and/or high English proficiency? (The total of the three columns should not exceed 100%.)

	Low/ Beginning		Medium/ Intermediate		High/ Advanced	
	N	%	N	%	N	%
10% or less	217	13%	100	6%	463	29%
11 - 25%	413	26%	423	26%	516	32%
26 - 50%	458	28%	632	39%	218	13%
51 - 75%	210	13%	235	15%	28	2%
76% or more	203	13%	88	5%	10	1%
No response or multiple	1201	7%	143	9%	386	24%

(12) If proficiency in English is not used as a basis for placing students into content-ESL classes, what is? (PLEASE INDICATE ALL THAT APPLY)

	N	%
Age/grade	527	33%
Content achievement	349	22%
Primary (home) language literacy	466	29%
Does not apply, English proficiency is used	482	30%
Other (PLEASE SPECIFY)	253	16%

(13) What percent of the LEP students in your program speak the following primary (home) languages?

	Any N	Any %	N>50%	%>50%
Spanish	1313	81%	922	57%
Vietnamese	533	33%	67	4%
Korean	298	18%	14	1%
Chinese	377	23%	29	2%

(14) Are the students' primary (home) languages used for instruction in your content-ESL classes?

	N	%
Yes	814	50%
No	730	45%
No response or multiple	77	5%

(15) What percentage of class time is devoted to content-ESL instruction in the students' primary (home) language(s)?

	N	%
25% or less	640	68%
26 - 50%	204	22%
51% or more	94	10%

(16) What languages other than English are used for instruction in your content-ESL classes? (PLEASE SPECIFY)

(17) Which of the following instructional approaches is used in your content-ESL classes? (PLEASE INDICATE ALL THAT APPLY)

	N	%
Whole language	1392	86%
Cooperative learning	1354	84%
Computer-assisted instruction	856	53%
A thematic structure	1065	66%
None of the above	26	2%

(18) Has a curriculum been developed specifically for this program?

	N	%
Yes	869	54%
No	605	43%
No response or multiple	57	3%

(19) What printed materials are commonly used in the program? (PLEASE INDICATE ALL THAT APPLY)

	N	%
Unadapted material used in the regular classroom	655	41%
Remedial/basic skills material	801	49%
Material adapted from the regular classroom	1191	74%
Material prepared specifically for the program	1183	73%
No material at all	14	1%

(20) How is student progress measured? (PLEASE INDICATE ALL THAT APPLY)

	N	%
Teacher-made tests	1269	78%
Portfolio assessment	853	53%
Student self-evaluation	303	19%
Progress checklists	828	51%
Other (PLEASE SPECIFY)	447	28%

(21) How long does the average student remain in content-ESL classes before being fully mainstreamed?

	N	%
One year or less	111	7%
Two years	388	24%
Three years	567	35%
Four years	215	13%
Five years or more	108	7%
No response or multiple	232	14%

(22) How would you characterize the socio-economic status of most of the students in your program? (PLEASE INDICATE ALL THAT APPLY)

	N	%
Families of moderate-high income	86	5%
Families of moderate income	190	12%
Families of low-moderate income	506	31%
Families of low income	124	77%
I have no idea	18	1%

(23) How would you characterize your school's location? (PLEASE INDICATE ALL THAT APPLY)

	N	%
Large metropolitan area (500,000-499,999)		
Central city	249	15%
Outside central city	186	12%
Mid-sized metropolitan area (100,000-499,999)		
Central city	150	10%
Outside central city	102	6%
Large town (25,000-99,000)	386	24%
Small town (2,500-24,999)	304	19%

Rural area (fewer than 2,000)	208	13%
No response or multiple	36	2%

(24) How many teachers are in the program?

Range	S.D.	Mean	Median
98	13.0	9.3	4

INFORMATION QUESTIONNAIRE FOR ADMINISTRATORS

NOTE: Summaries are given only for items that are relevant to study questions.

SECTION A

A.1 Which of the following program descriptions applies to your content-ESL program? (PLEASE INDICATE ALL THAT APPLY)

	N	%
Early Transitional Bilingual Education	218	47%
Late Transitional Bilingual Education	61	13%
Maintenance Bilingual Education	79	17%
Two-Way (Developmental) Bilingual Education	49	11%
Sheltered English/ Sheltered Instruction	186	40%
Thematic English	150	32%
Adjunct English and Content Instruction	79	17%
Bridge Course Structure	82	18%
Content-Based ESL	247	53%
Language Sensitive Content Instruction	114	24%
Newcomer Center	37	8%
Other	20	4%

A.2 Which of these describes your role most accurately?

	N	%
Principal	156	33%
Assistant principal	44	9%
ESL department chair	58	12%
Subject area department chair	2	<1%
School level program coordinator	45	10%
Counselor	7	2%
District supervisor/ curriculum specialist	90	20%
Resource teacher	24	5%
Other	28	6%
No response or multiple	14	3%

A.3 What was the impetus for creating the content-ESL class(es)? (PLEASE INDICATE ALL THAT APPLY)

	N	%
Rapid influx of LEP students	289	62%
High drop-out rates among LEP students	85	18%
Low achievement in academic content courses	230	49%
Professional desire to find more effective courses	163	35%
High cost of English as a second language (ESL) courses	13	3%
Desire to integrate students as rapidly as possible	220	47%
Success of such classes in other districts	57	12%
Legal mandate	131	28%
Other	18	4%

A.4 Who was most responsible for the design of the content-ESL class(es)? (PLEASE INDICATE ALL THAT APPLY)

	N	%
Individual teacher(s)	170	36%
Team(s) of teachers	136	29%
Administrators	98	21%
Teachers and administrators	253	54%
Guidance counselor(s)	24	5%
Community members/ parents	43	9%
Other	28	6%

A.5 Who is most responsible for making decisions about LEP student admission to, placement in, and exit from the content-ESL classes?

	N	%
Individual teacher(s)	107	23%
Team(s) of teachers	125	27%
Administrator(s)	50	11%
Teacher(s) and administrator(s)	213	46%
Guidance counselor(s)	55	12%
Community members/parents	42	9%
Other	62	13%

A.6 Is there a specific content-ESL curriculum?

	N	%
Yes (Go to question A.7)	223	48%
No (go to question A.9)	236	50%
No response or multiple	9	2%

A.7 For which content-ESL classes do you have a specific curriculum?

	N	%
Science	145	31%
Mathematics	131	28%
Social Studies	166	36%
Reading	139	30%
Language arts	173	37%
Shop or Practical arts	22	5%
Health, Family life	46	10%
Other	21	5%

A.8 Who wrote the content-ESL curriculum?

	N	%
Teacher committee(s)	169	37%
Independent consultant(s)	17	4%
School-based administrator(s)	20	4%
District-level personnel	82	18%
State-level personnel	22	5%
Other	21	5%

A.9 How does your school's administration evaluate the progress of the LEP students who are attending content-ESL classes? (PLEASE INDICATE ALL THAT APPLY)

	N	%
Teacher-made tests and quizzes	325	69%
Grades	290	62%
Standardized test measuring achievement in academic content	265	57%
Standardized test measuring language proficiency	292	62%
Oral reports	159	34%
Student projects	177	38%
Compositions/writing samples	230	49%
Portfolios	184	39%
Cooperative assessment (all students in a group receive the same grade for collaborative work)	79	17%
Student self-evaluation	55	12%
Checklists of student performance	112	24%
Attendance tallies	79	17%
Students are not assessed formally	27	6%
Other	17	4%

A.10 What support is provided for content-ESL teachers?

	N	%
Consultant services	225	48%
Supplementary funding	183	39%
Incentive pay	31	7%
Teacher stipends for training	153	33%
Local business support	22	5%
Release time for training, conference attendance, curriculum development, etc.	325	69%
Regular content-ESL staff meetings	206	44%
Scheduled time for planning	222	47%
Staff development for content-ESL staff	277	59%
Instructional materials	326	70%
Special library resources	125	27%
Teacher reference materials	193	41%
Aides, tutors, or paraprofessionals	288	62%
Equipment	196	42%
None of the above	15	3%

A. 11 What types of staff development do the content-ESL teachers participate in? (PLEASE INDICATE ALL THAT APPLY)

	N	%
District/school in-service education sessions	386	83%

District in-service curriculum development	261	56%
State or regional workshops	299	64%
Peer observation	127	27%
Mentoring and coaching	146	31%
Conference attendance	310	66%
University courses	219	47%
Video TV/telephone/ computer instruction	79	17%
None of the above	16	3%

SECTION B

B.1 How many students are in your school?

	N	%
0-300	46	10%
301-600	142	29%
601-900	91	19%
901-1200	70	15%
1201-1500	38	8%
1501-1800	22	5%
1801-2100	17	4%
2101-2400	11	3%
2401-2700	4	1%
2701-3000	4	1%
No response	23	5%

B.2 How many students in your school are from families in which the primary (home) language is not English?

	N	%
0-50	99	24%
51-100	78	16%
101-150	62	13%
151-200	45	10%
201-250	26	5%
251-300	22	5%
301-350	19	4%
351-400	22	5%
401-450	7	1%
451-500	10	2%
501-550	6	1%
551-600	8	2%
601-650	8	2%
651-700	7	2%
Above 700	29	6%
No response	20	4%

B.3 How many limited English proficient (LEP) students are enrolled in content-ESL classes at your school?

	N	%
0-50	184	39%
51-100	96	21%
101-150	53	11%
151-200	40	8%
201-250	20	4%
251-300	9	2%
301-350	10	2%
351-400	9	2%
401-450	6	1%
451-500	5	1%
Above 500	12	3%
No response	24	6%

SECTION C

C.1 How many regular classroom/content teachers work with LEP students in content-ESL classes?

	N	%
0-5	219	47%
6-10	73	16%
11-15	45	10%
16-20	31	6%
21-25	20	3%
26-30	14	3%
31-35	13	3%
36-40	8	2%
Above 40	15	4%
No response	30	6%

C.2 How many ESL teachers work with LEP students in content-ESL classes?

	N	%
0	70	15%
1	139	30%
2	60	13%
3	59	12%
4	22	5%
5	22	5%
6	8	2%
7	11	2%
8	8	2%
9	7	1%
10	5	1%
11-15	15	3%
16-20	9	2%
Above 20	14	3%
No response	19	4%

C.3 How many bilingual teachers work with LEP students in content-ESL classes?

	N	%
0	149	32%
1	94	20%
2	53	12%
3	34	7%
4	15	3%
5	20	4%

6	13	3%
7	10	2%
8	5	1%
9	5	1%
10	10	2%
11-15	14	3%
Above 15	25	5%
No response	21	5%

C.4 How many support/resource teachers (e.g., Chapter 1, special education, reading) work with LEP students in content-ESL classes?

	N	%
0	148	32%
1	90	19%
2	54	11%
3	38	8%
4	38	8%
5	20	4%
6	13	3%
7	12	3%
8	6	1%
9	2	>1%
10	7	2%
Above 10	18	4%
No response	22	5%

C.5 How many aides, paraprofessionals, or teaching assistants work with LEP students in content-ESL classes?

	N	%
0	82	17%
1	100	21%
2	60	13%
3	50	11%
4	40	8%
5	25	5%
6	18	4%
7	9	2%
8	12	3%
9	5	1%
10	4	1%
11-15	23	5%
16-20	9	2%
Above 20	13	3%
No response	18	4%

C.6 How many volunteers work with LEP students in content-ESL classes?

	N	%
0	253	54%
1	48	10%
2	27	6%
3	19	4%
4	19	4%
5	20	4%
6	8	2%
7	1	>1%
8	7	1%
9	1	>1%
10	19	5%
Above 10	19	4%
No response	27	6%

SECTION D

D.1 What percentage of the LEP students in your content-ESL classes is eligible to participate in a free or reduced-price lunch program?

	N	%
0-19.9%	54	12%
20-39.9%	32	7%
40-59.9%	31	7%
60-74.9%	58	12%
75-100%	262	56%
No response	31	7%

D.2 List the major primary (home) languages and countries of origin of the LEP students in your content-ESL classes. Identify the percentage of those students each language group represents.

D.3 What subjects or grade levels have you taught and for how many years?

D.4 What languages do you know?

Albanian (Albania, Yugoslavia)
American Sign Language
Amharic
Apache
Arabic
Armenian
Assiniboine
Byelorussian
Bengali
Blackfoot
Cantonese
Chamorro
Chaldean
Cherokee
Chinese (Mandarin)
Chippewa
Choctaw
Crow
Czech
Danish
Dutch
English
Farsi (Eastern)
Farsi (Western)
French
German
Gujarati
Haitian Creole French
Hebrew
Hindi
Hmong
Hopi
Hungarian
Ibo (Nigeria)
Indonesian
Italian
Jamaican Creole English
Japanese
Khmer/Cambodian
Korean
Krio (Gambia, Guinea)
Kurdi/Kurdish
Lahu (Laos)
Lakota
Laotian/Lao
Latin
Malay
Malayalam
Marathi
Marshallese
Mende (Sierra Leone, Liberia)
Mien
Mitchiti (Mikasuki-Native American)
Navajo
Norwegian
Polish
Portuguese
Punjabi
Quechan
Rumanian
Russian
Serbo-Croatian
Sesotho
Sioux
Slovak
Somali
Spanish
Swedish
Tagalog
Tamil
Thai
Thai Dang
Tigrinya
Tiwa
Trinidadien
Trukese
Ukrainian
Urdu
Vietnamese
Yoruba

INFORMATION QUESTIONNAIRE FOR TEACHERS

*Percentages have been rounded to the nearest whole number
*Standard deviations and means have been rounded to the nearest hundredth

SECTION ONE

1.1 How would you describe yourself?

	N	%
Content Teacher	81	18%
ESL-Pullout	129	28%
ESL-Non Pullout	148	32%
Bilingual	103	22%
No response or multiple	7	2%

1.2 Which of these describes your role most accurately? (PLEASE INDICATE ALL THAT APPLY)

	N	%
Teach Content/English simultaneously	295	63%
Teach Content/English not simultaneously	73	16%
Teach English, Another teaches Content, We plan	55	12%
Teach English, Another teaches Content, Don't plan	64	14%
Teach Content, Another teaches English, We plan	15	3%
Teach Content, Another teaches English, Don't plan	25	5%
Teach Content, Another Paraprof/Aide teaches English	18	4%
Teach Content, Send students out for additional help	13	3%
Other	15	3%

1.3 What content area(s) do you now teach to LEP students in your content-ESL classes? (PLEASE INDICATE ALL THAT APPLY)

	N	%
Science	247	53%
Mathematics	228	49%
Social studies	303	65%
Language arts	334	71%
Reading	303	65%
Shop or practical arts	24	5%
Health, family life	118	25%
Other	38	8%

1.4 How many years have you instructed LEP students in content-ESL classes?

	N	%
Less than 1	30	6%
1-2	92	20%
3-4	106	23%
5-6	62	13%
7-8	34	7%
9-10	71	15%
11 or more	62	13%
No response or multiple	11	2%

SECTION TWO

		Very Well	Moderately	Adequately	Poorly	Not at all
2.1	How well do the majority of the LEP students in your content-ESL classes read and write their primary (home) language?	12%	17%	33%	29%	12%
2.2	How well do the majority of the LEP students in your content-ESL classes listen to and speak English?	7%	23%	43%	27%	1%
2.3	How well do the majority of the LEP students in your content-ESL classes read and write English?	1%	15%	31%	48%	5%

Mean and Standard Deviation for Section Two

	$\bar{X}$	S.D.
2.1 How well do the majority of the LEP students in your content-ESL classes read and write their primary (home) language?	3.16	1.15
2.2 How well do the majority of the LEP students in your content-ESL classes listen to and speak English?	2.91	.90
2.3 How well do the majority of the LEP students in your content-ESL classes read and write English?	3.41	.85

Note: 1=Very well 2=Moderately 3=Adequately 4=Poorly 5=Not at all

SECTION THREE

3.1 What percentage of the LEP students in your content-ESL classes had no prior schooling?

	N	%
0-20%	392	84%
21-40%	26	6%
41-60%	11	2%
61-80%	6	1%
21-100%	18	1%
No response or multiple	15	3%

3.2 What percentage of the LEP students in your content-ESL classes has been educated continuously since the age of 6 or younger?

	N	%
0-20%	70	15%
21-40%	39	8%
41-60%	42	9%
61-80%	62	13%
81-100%	229	49%
No response or multiple	26	6%

3.3 What percentage of the LEP students in your content-ESL classes participated in migrant education*?

	N	%
0-20%	370	79%
21-40%	24	5%
41-60%	13	3%
61-80%	16	3%
81-100%	29	6%
No response or multiple	16	3%

***Migrant education is for children who accompany their immediate families across district boundaries for purposes of agricultural or fishery employment within a 12-month period.**

3.4 What percentage of the LEP students in your content-ESL classes participated in refugee education?**

	N	%
0-20%	386	83%
21-40%	23	5%
41-60%	8	2%
61-80%	12	3%
81-100%	13	3%
No response or multiple	26	4%

****Refugee education is provided in transit camps for children whose families have fled civil unrest, war, famine, etc. Such camps may or may not be operated by the U.S. government, which may or may not accord the residents in the camps political refugee status.**

SECTION FOUR

4.1 What percentage of the LEP students in your content-ESL classes has had continuous private or public schooling in this country?

	N	%
Less than 25%	143	31%
25-49%	33	7%
50-74%	47	10%
75-100%	185	40%
Don't know	38	8%

4.2 On average, how many times per year are the parents of the LEP students in your content-ESL classes invited to meet with the content-ESL staff and faculty?

	N	%
Zero	22	5%
1-2	165	35%
3-4	150	32%
5-6	51	11%
7-8	21	5%
9-10	20	4%
11 or more	18	4%
No response or multIple	21	5%

4.3 How do you inform parents about the content-ESL classes? (PLEASE INDICATE ALL THAT APPLY)

	N	%
Letters home	360	77%
Printed materials other than letters	206	44%
Orientation meetings	216	46%
Parent-teacher nights	339	72%
Home visits	139	30%
Telephone calls	284	61%
Other	60	13%

4.4 What opportunities are there for contact between the LEP students in your content-ESL classes and native English speakers? (PLEASE INDICATE ALL THAT APPLY)

	N	%
Interaction in content-ESL classes	191	41%
Interaction through organized activities	277	59%
Conversations with friends/mentors	247	53%
Classroom visits by native English speakers from the community	130	28%
Field trips involving interaction	200	43%
Other	102	22%

SECTION FIVE

Average number of hours per day that LEP students in content-ESL classes spend on the following activities

	$\bar{X}$	S.D.
5.1 Interaction with native English speaking peers at school	3.66	1.82
5.2 Listening to and speaking English	4.58	1.59
5.3 Reading and writing English	3.28	1.71
5.4 Academic tasks such as science or math that require reading and writing in English	2.49	1.51
5.5 Integrating English language skills and academic instruction at school	3.78	1.81
5.6 Receive instruction in academic content with primary (home) language support at school	1.44	.71
5.7 Receive academic content in modified or sheltered English	2.25	1.73

Note: 1=0 hours 2=1 hour 3=2 hours 4=3 hours 5=4 hours 6=5 hours 7=6 hours

SECTION SIX

How often do you use the following INSTRUCTIONAL APPROACHES in your content-ESL classes?

	$\bar{X}$	S.D.
6.1 Focus on academic English through reading and writing	2.00	.92
6.2 Stress on oral communication and communicative activities	1.59	.68
6.3 The Natural Approach	2.21	1.10
6.4 Lessons stressing grammar points	3.14	1.01
6.5 Cooperative learning	2.23	.78
6.6 Daily assessment	2.20	.97
6.7 Teacher-student research	3.29	.96
6.8 Instruction from a mandated curriculum	2.65	1.24
6.9 Discovery/inquiry learning	2.50	.89
6.10 Computer-assisted instruction	3.13	1.16
6.11 Variety of tasks during one class period	1.83	.80
6.12 Development of strategies for learning and thinking (e.g., strategies for memory, self-evaluation, reasoning)	2.29	.90
6.13 Explicit integration of critical thinking skills, academic content, and English	2.14	.91

Note: 1=Always 2=Often 3=Sometimes 4=Rarely 5=Never

SECTION SEVEN

How often do you use the following ACTIVITIES with the LEP students in your content-ESL classes?

	$\bar{X}$	S.D.
7.1 "Whole language" instruction	2.02	.90
7.2 Language experience (LEA)	2.31	.97

7.3 Activities determined largely by textbook or textbook series	3.10	1.01
7.4 Video exercises and aids for language reinforcement	3.24	.99
7.5 Language laboratory activities	3.96	1.14
7.6 Problem-solving activities	2.48	.81
7.7 Practice in test-taking skills	3.02	.87
7.8 Intensive English language exercises such as drills	3.46	1.16
7.9 Hands-on activities such as science experiments or vocational training	2.73	1.10
7.10 Jazz chants, singing, rap and/or similar oral activities	2.98	1.16
7.11 Extramural activities such as field trips	3.30	.90
7.12 Games, role plays, and/or simulations	2.40	.82
7.13 Activities using visuals other than videos	2.19	.86
7.14 Activities requiring little production (e.g., TPR)	2.97	1.02
7.15 Process-oriented composition, diary/journal writing, and/or other forms of free writing	2.33	1.02
7.16 Systematic pronunciation exercises	3.51	1.14
7.17 Structured oral practice (e.g., debates)	3.54	1.01
7.18 Extensive reading/reading for pleasure	2.41	1.07
7.19 Structured reading practice or phonics	3.05	1.10

Note: 1=Always 2=Often 3=Sometimes 4=Rarely 5=Never

SECTION EIGHT

How often do you use the following MODIFICATIONS to make academic content comprehensible to the LEP students in your content-ESL classes?

	$\bar{X}$	S.D.
8.1 Adapt activities to students' English language needs	1.48	.70
8.2 Integrate four skills (listening, speaking, reading, writing)	1.51	.64
8.3 Focus on student awareness of process and/or objectives	1.92	.86
8.4 Pace to accommodate the needs of individual students	1.59	.73
8.5 Use a variety of student groupings	1.92	.88
8.6 Plan lessons with attention to diverse learning styles among students	1.80	.86
8.7 Use visuals other than video	2.00	.85
8.8 Use contextualized reinforcement of English	2.00	.87
8.9 Use a variety of tasks during one class period	1.78	.77
8.10 Give systematic feedback on student performance	1.82	.79
8.11 Refer to concrete objects	1.81	.72
8.12 Distribute presentation outlines, notes, and/or handouts	2.61	1.06
8.13 Make few references to U.S. culture and jokes	2.96	1.13
8.14 Take advantage of teachable moments	1.49	.67
8.15 Write what you say on the board or newsprint	1.99	.81
8.16 Organize content into smaller chunks per unit	1.76	.75
8.17 Simplify content	1.79	.88
8.18 Frequently check comprehension through questions	1.52	.67
8.19 Extend exposition or concept development	2.12	.86
8.20 Read aloud from the textbook	2.52	1.17
8.21 Make references to the students' primary culture	2.11	.84
8.22 Have frequent question-and-answer sessions	1.98	.80

Note: 1=Always 2=Often 3=Sometimes 4=Rarely 5=Never

SECTION NINE

How often do you use the following MODIFICATIONS IN LANGUAGE to make academic content comprehensible to the LEP students in your content-ESL class?

	$\bar{X}$	S.D.
9.1 Speak more slowly	1.98	.92
9.2 Enunciate more clearly	1.74	.77
9.3 Use limited vocabulary	2.29	1.02
9.4 Use fewer words	2.49	1.10
9.5 Use definitions or examples frequently	1.62	.68
9.6 Use cognates [English words related to words in a student's native language]	2.45	1.12
9.7 Refer to concrete objects	1.73	.66
9.8 Use shorter, simpler sentences	2.04	.92
9.9 Speak louder	3.44	1.25
9.10 Use less variety in verb tenses	2.90	1.05
9.11 Use fewer idioms (untranslatable expressions)	2.51	.97
9.12 Stress key words in speech	1.98	.87
9.13 Talk around the topic	3.10	1.18
9.14 Speak in sentence fragments (telegraphese)	3.65	1.10
9.15 Use repetition	2.01	.85
9.16 Use frequent oral spelling	3.04	1.06
9.17 Explain in a student's native language	3.23	1.31
9.18 Paraphrase	2.27	.78
9.19 Write what you say on the board or newsprint	2.11	.85
9.20 Occasionally translate a difficult word	2.62	1.17

Note: 1=Always 2=Often 3=Sometimes 4=Rarely 5=Never

SECTION TEN

How often do you use the following CLUES or AIDS to enhance understanding by the LEP students in your content-ESL classes?

	$\bar{X}$	S.D.
10.1 Gestures	1.62	.66
10.2 Facial expressions	1.67	.68
10.3 Props or objects from the real world (realia)	1.91	.75
10.4 Demonstrations	1.96	.76
10.5 Graphs, charts, graphics and/or graphic organizers	2.17	.88
10.6 Improvised drawings	2.14	.81
10.7 Textbooks	2.63	1.02
10.8 Authentic print material	2.40	.85
10.9 Word banks, word charts, and/or word lists	2.45	.96
10.10 Overhead transparencies	2.96	1.20
10.11 Bulletin boards	2.19	1.01
10.12 Videos or films	2.90	.93
10.13 Audio-cassettes	2.81	1.04
10.14 Semantic mapping (netting, clustering, webbing)	2.54	1.02

Note: 1=Always 2=Frequently 3=Sometimes 4=Rarely 5=Never

SECTION ELEVEN

11.1 Do you create activities or materials for the LEP students in your content-ESL classes?

	N	%
Yes	420	90%
No	18	4%
No response or multiple	30	6%

11.2 What published material do you use with the LEP students in your content-ESL classes? (PLEASE INDICATE ALL THAT APPLY)

	N	%
Same textbooks and workbooks as used in regular, non-ESL classes	248	53%
Basic skills or remedial materials	219	47%
ESL textbooks and workbooks published to fit the language proficiency level of the students	291	62%
Textbooks and workbooks modified for these classes	128	27%
Textbooks and workbooks designed for these classes	148	32%
None of the above	46	10%

11.3 How do you evaluate the LEP students' progress in your content-ESL class(es)?

	N	%
Periodic teacher-made paper-and-pencil test	321	69%
Quizzes	273	58%
Informal questioning	381	81%
Standardized tests measuring achievement in academic content	176	38%
Standardized tests measuring reading achievement	185	40%
Standardized tests measuring language proficiency	229	49%
Simulations or oral reports	237	51%
Student projects	313	67%
Compositions	245	52%
Journals	255	5%
Portfolios	216	46%
Cooperative assessment (all students in a group receive the same grade for collaborative work)	194	42%
Student self-evaluations	106	23%
Checklists of student performance	204	44%
Attendance tallies	87	19%
Students are not assessed formally	29	6%
Other	22	5%

11.4 Which of the following best describes your educational attainment?

	N	%
Bachelor's degree	16	3%
Bachelor's degree and additional credits	174	37%
Master's degree	52	11%
Master's degree and additional credits	190	41%
Doctorate	10	2%
Multiple or no response	26	6%

11.5 Is certification (a credential or endorsement) in a content area (e.g., mathematics, science, etc.) required to teach content-ESL at your school?

	N	%
Yes	191	41%
No	241	52%
No response or multiple	36	8%

11.6 Is ESL certification (a credential or endorsement) required to teach content-ESL?

	N	%
Yes	260	56%
No	177	38%
No response or multiple	31	7%

11.7 Do you have certification (a credential or endorsement) in TESOL (ESL, TESL, or LDS)?

	N	%
Yes	299	64%
No	143	31%
No response or multiple	26	6%

11.8 If yes, PLEASE INDICATE ALL THAT APPLY

	N	%
ESL	250	53%
TESL	88	19%
LDS (Language Development Specialization)	40	9%

11.9 What professional preparation or staff development in content-ESL have you had? (PLEASE INDICATE ALL THAT APPLY)

	N	%
Undergraduate course(s)	144	31%
Graduate course(s)	303	65%
TV course(s)	21	5%
In-service program(s)	336	72%
Other	52	11%

SECTION TWELVE

12.1 What subjects or grade levels have you taught and for how many years? *SUMMARY NOT AVAILABLE*

12.2 What language(s) do you know? *SUMMARY NOT AVAILABLE*

SECTION THIRTEEN

13.1 Have you ever taught grammar-based ESL?

	N	%
Yes (Go to Question 13.2)	144	31%
No (You are finished)	258	55%
No response or multiple	66	14%

13.2 Do LEP students in content-ESL classes learn English listening and speaking skills faster than in conventional grammar-based classes?

	N	%
Yes	117	25%
No	32	7%
No response or multiple		

13.3 Do LEP students in content-ESL classes learn English reading and writing skills faster than in conventional grammar-based classes?

	N	%
Yes	115	25%
No	30	6%
No response or multiple		

13.4 Do LEP students in content-ESL classes improve their academic achievement in content ares (e.g., mathematics, science, social studies) faster than in conventional grammar-based classes?

	N	%
Yes	127	27%
No	15	3%
No response or multiple		

POST-OBSERVATION CHECKLIST

NOTE: Summaries are given only for those items that address study questions.

ENVIRONMENT

(1) CONTENT AREA

Reading/English language arts
Mathematics
ESL
Social studies
Science
Other

(2) ROOM ARRANGEMENT

Desks facing the front
Semi-circle or U shape or cluster
Patterned clusters
Scattered clusters
Rows facing each other
Other

(3) MEDIA

Three-dimensional objects (globes, maps, etc)
Print-rich bulletin boards
Student work displayed (on walls, tables, etc.)
Bookshelves with textbooks
Bookshelves with supplementary readers
Bookshelves with trade books
Bookshelves with reference books
Learning centers
Computer stations
Television monitor/VCRs
Other

(4) LANGUAGE ACCOMMODATION

Sheltered
Non-sheltered

(5) INSTRUCTOR(S): Number

Teacher only
Teacher and one other instructor
Teacher and aide
Teacher and volunteer
No teacher: aide only
Other

(6) INSTRUCTOR(S): Type

ESL
Content
Reading/English language arts

(7) LANGUAGE: Teacher(s) (Complete for lead teacher)

Spoke only English
Spoke English more than another language
Spoke two languages in equal measure
Spoke another language more than English
Did not speak at all

(8) LANGUAGE: Aide(s) (Complete for chief aide)

Spoke only English
Spoke English more than another language
Spoke two languages in equal measure
Spoke another language more than English
Did not speak at all

(9) LANGUAGE: Students

Spoke only English
Spoke English more than another language
Spoke two languages in equal measure
Spoke another language more than English

(10) SPEECH: Percentage of class time [instructor(s) and students)]

Instructor(s)

20% or less
50%
60% or more
80% or more

Students
20% or less
50%
60% or more
80% or less

ACTIVITIES

(11) SPEECH: Dominance

Instructor did most of the talking
Distribution was about 50-50
Students did most of the talking
No one spoke

(12) GROUPS(S): Size

Whole class
Small groups: varied size
Small groups: 6 or more
Small groups: 5 or fewer
Pairs
Individuals

(13) TASK(S): Focus

Reading/English language arts
Mathematics
ESL
Social studies
Science
Other

(14) TASK(S): Skill(s) Required (indicate all that apply)

Listening
Speaking
Reading
Writing
Other

(15) TASK(S): Structure (student work)

Independent and competitive
Independent and uncompetitive
Independent and cooperative
Cooperative and competitive
Cooperative and uncompetitive
Other

(16) TASK(S): Variety

Task varied by individual
Task varied by sub-group
Task didn't vary

(17) BEHAVIOR: Student(s)

Participated in discussion
Led a discussion
Did a paper-and-pencil exercise
Went over a test
Wrote
Solved a problem on paper
Performed an experiment
Built an object
Dictated
Completed a map
Read aloud
Read silently
Copied
Demonstrated
Reviewed homework
Answered teacher's questions
Took dictation
Listened to directions
Listened to peers
Made a drawing
Other

(18) BEHAVIOR: Teacher(s)

Participated in a discussion
Led a discussion
Made a drawing
Mapped or webbed
Went over a test
Went over homework
Wrote
Solved a problem
Performed an experiment
Built an object
Dictated
Recorded dictation
Completed a map
Read aloud
Read silently
Reported
Demonstrated
Other

(19) MATERIALS: Type

Texts
Trade books
Workbooks, worksheets
Realia (i.e., objects not normally instructional)
Visuals (e.g., drawings, photos, maps, etc.)
Film/videos (e.g., chalkboard, etc.)
Tabulae rasae
Journals
Graphic organizers
Manipulatives (e.g. board games, etc.)
Computer/interactive video
Satellite/distance learning materials
Other

(20) MATERIALS: Source

Commercial
Teacher-program made
Student-made
Other

(21) MATERIALS: Accommodation

Adapted or simplified
Unadapted
Graded material for language development

(22) MATERIALS: Audience

LEP-specific
Non LEP-specific

INSTRUCTION

General characteristics: Did the teacher. . .?
Select one: a. Yes b. No c. indeterminable

(23) Vary activities

(24) Vary instructional materials

(25) Put the students at ease

(26) Help students feel comfortable with taking risks/making errors

(27) Encourage multiple answers

(28) Present concepts in cognitively and linguistically appropriate forms

(29) Incorporate routine procedures

(30) Sequence the lesson clearly/appropriately

(31) Pace the lesson effectively

INSTRUCTION

Specific characteristics: How often did the teacher. . .?
Select one: a. Frequently b. Sometimes c. Seldom d. Never

(32) Adapt English

(33) Check (aural) comprehension

(34) Stress accuracy in English

(35) Ask students to modify their utterances

(36) Correct/elicit corrections of student utterances

(37) Repeat student utterances

(38) Write student utterances on the chalkboard

(39) Drill

(40) Focus on grammar

(41) Provide grammatical explanations

(42) Focus on vocabulary

(43) Require reading

(44) Stress decoding

(45) Require writing (e.g., copying, fill-ins, short answers, etc.)

(46) Revise/edit student writing/composition

DISCOURSE

(47) Require speaking

(48) Require use of English

(49) Responds in English to question posed in L1

(50) Use students' L1(s)

	N	%
Never	65	52%
Seldom	16	13%
Sometimes	8	6%
Frequently	17	14%
No response	19	15%

$\bar{X}$	Median	S.D.
1.78	1.00	1.14

1=Never 2=Seldom 3=Sometimes 4=Frequently

(51) Respond in L1 to questions posed in L1

(52) Paraphrase student utterances

	N	%
Never	35	28%
Seldom	32	26%
Sometimes	30	24%
Frequently	11	9%
No response	17	14%

$\bar{X}$	Median	S.D.
2.16	2.00	1.00

1=Never 2=Seldom 3=Sometimes 4=Frequently

(53) Extend student utterances

(54) Stress general reading comprehension

	N	%
Never	65	52%
Seldom	12	10%
Sometimes	22	18%
Frequently	14	11%
No response	12	10%

$\bar{X}$	Median	S.D.
1.87	1.00	1.12

1=Never 2=Seldom 3=Sometimes 4=Frequently

(55) Require composition (e.g., outlining, note-taking, etc.)

(56) Contextualize (e.g., pictures, stories, classroom experiences)

	N	%
Never	21	17%
Seldom	13	10%
Sometimes	34	27%
Frequently	45	36%
No response	12	10%

$\bar{X}$	Median	S.D.
2.91	3.00	1.12

1=Never 2=Seldom 3=Sometimes 4=Frequently

(57) Question students

(58) Use lower order questions (e.g., recall)

	N	%
Never	5	4%
Seldom	11	9%
Sometimes	27	22%
Frequently	71	57%
No response	11	9%

$\bar{X}$	Median	S.D.
3.44	4.00	.84

1=Never 2=Seldom 3=Sometimes 4=Frequently

(59) Use information questions (i.e., questions to which the teacher doesn't know the answer)

	N	%
Never	68	54%
Seldom	23	18%
Sometimes	19	15%
Frequently	5	4%
No response	10	8%

$\bar{X}$	Median	S.D.
1.66	1.00	.91

1=Never 2=Seldom 3=Sometimes 4=Frequently

(60) Use higher order questions (e.g., application, analysis, synthesis, opinion, etc.)

	N	%
Never	41	33%
Seldom	26	21%
Sometimes	33	26%
Frequently	15	12%
No response	10	8%

$\bar{X}$	Median	S.D.
2.19	2.00	1.07

1=Never 2=Seldom 3=Sometimes 4=Frequently

(61) Encourage questions and comments

(62) Attend to questions and comments

CONTENT

(63) Integrate language and content

(64) Enable students to understand concept(s)

(65) Involve students in critical thinking

	N	%
Never	40	32%
Seldom	28	22%
Sometimes	26	21%
Frequently	19	15%
No response	12	10%

$\bar{X}$	Median	S.D.
2.12	2.00	1.10

1=Never 2=Seldom 3=Sometimes 4=Frequently

(66) Exhibit a command of the material

METHODOLOGY

(67) Use an appropriate sequencing strategy in selecting activities

(68) Use visuals

(69) Use manipulatives

(70) Use gestures

(71) Require movement

(72) Evoke students' prior knowledge

	N	%
Never	14	11%
Seldom	13	10%
Sometimes	37	30%
Frequently	50	40%
No response	11	9%

$\bar{X}$	Median	S.D.
3.08	3.00	1.02

1=Never 2=Seldom 3=Sometimes 4=Frequently

(73) Pre-teach vocabulary

	N	%
Never	51	41%
Seldom	9	7%
Sometimes	17	14%
Frequently	31	25%
No response	17	14%

$\bar{X}$	Median	S.D.
2.26	2.00	1.31

1=Never 2=Seldom 3=Sometimes 4=Frequently

(74) Adjust concept presentation to accommodate students' conceptual level

	N	%
Never	9	7%
Seldom	9	7%
Sometimes	29	23%
Frequently	62	50%
No response	16	13%

$\bar{X}$	Median	S.D.
3.32	4.00	.94

1=Never 2=Seldom 3=Sometimes 4=Frequently

(75) Direct attention to strategies of study skills

(76) Review instruction

(77) Encourage collaboration

(78) Interrupt for management

(79) Interrupt for discipline

(80) Engage students' interest

(81) Encourage students

(82) Communicate high expectations

	N	%
Never	21	17%
Seldom	15	12%
Sometimes	19	15%
Frequently	55	44%
No response	15	12%

$\bar{X}$	Median	S.D.
2.98	3.50	1.19

1=Never 2=Seldom 3=Sometimes 4=Frequently

(83) Monitor student progress

(84) Provide positive feedback on student performance

(85) Provide negative feedback on student performance

(86) Mention goals

(87) Elicit/make comments on the process

	N	%
Never	39	31%
Seldom	19	15%
Sometimes	35	28%
Frequently	20	16%
No response	12	10%

$\bar{X}$	Median	S.D.
2.32	2.00	1.13

1=Never 2=Seldom 3=Sometimes 4=Frequently

LEARNER BEHAVIOR

How often did the student(s). . .? Select one: a. Frequently b. Sometimes c. Seldom d. Never

(88) Answer teacher's questions

(89) Answer another student's questions

(90) Ask clarification questions

(91) Ask information questions

(92) Extend another student's contribution

(93) Correct/modify another

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student's contribution

(94) Participate in task-related conversations with peer(s)

(95) Initiate non-task-related conversations with peer(s)

(96) Suggest alternative hypotheses or predictions

(97) Initiate topics

Appendix IX

State Credentialing Information

Required ESL/Bilingual Teacher Certification Information by State

N/A = Not applicable

State	ESL Certification Required	Hours Required
AL	No	N/A
AK	Yes	See certification requirements
AZ	Yes, as of 1988	N/A
AR	No	N/A
CA	Yes	See certification requirements
CO	Yes, as of 1975	N/A
CT	Yes, as of July 1, 1993	See certification requirements
DC	Yes	30 semester hours
DE	Yes	Currently revising bilingual certification requirements
FL	Yes	All teachers of LEP students are not required to obtain the ESOL coverage or the ESOL endorsement. Teachers of LEP students in subjects other than English or language arts must complete designated training requirements. The ESOL Agreement established three categories of teachers of LEP students: Category 1 - Teachers of basic ESOL or the teachers of the primary English or language arts to LEP students (use of ESOL strategies) Category 2 - Teachers of math, science, social studies, and computer literacy to LEP students (use of ESOL and home language strategies) Category 3 - Teachers of all other subjects other those mentioned above. This category includes guidance counselors and educational media specialists (use of ESOL strategies) See certification requirements
GA	Yes	15 credit hours
HI	Yes	See certification requirements
ID	Yes	20 semester hours
IL	Yes	18 semester hours
IN	Yes	24
IA	Yes	24 semester hours
KS	Yes, as of 1989	12 semester hours
KY	No	N/A

LA	Yes	12
ME	No	N/A
MD	Yes	21+21
MA	Yes	Certification requirements in development
MI	Yes	N/A See certification requirements for bilingual endorsement
MN	Yes as of July 1, 1987	15 semester hours
MS	Yes, as of 1989	12 credit hours
MO	Yes, as of February 5, 1989	21 semester hours
MT	Yes	2 years or equivalent experience learning a second language to include knowledge of the linguistic structure of the language and features of a culture which uses the language
NE	Yes	15 semester hours
NV	Yes, as of September 1986	See certification requirements
NH	Yes	No information available
NJ	Yes, as of 1990	See certification requirements
NM	Yes, as of July 1, 1989	N/A
NY	Yes, as of September 2, 1995	N/A
NC	Yes	Teacher must be certified in the state and be employed teaching limited English proficient children
ND	No	N/A
OH	No	N/A
OK	Yes	24
OR	No	The teacher must hold a certificate valid for teaching at the grade level of assignment
PA	No	N/A
RI	Yes	N/A
SC	No	N/A
SD	No	N/A
TN	Yes	N/A
TX	Yes, as of 1985	12 semester hours
UT	Yes	See certification requirements
VT	No	N/A
VA	Yes, as of July 1, 1986	24 semester hours
WA	Yes	24 quarter hours
WV	No	N/A
WI	Yes	N/A

WY	Yes, as of March 1992	No required number of hours

ESL/Bilingual Teacher Certification: Areas of Study

N/A = No information available

State	Areas From Which Hours Must Be Taken For Certification
AL	N/A
AK	The requirement for ESL endorsement is completion of an approved teacher education sequence in TESL.
AZ	1. Valid AZ teaching certificate 2. Completion of approved program in ESL or 21 semester hours from accredited institution, including 3 hours in each of the following: Linguistics Advanced English grammar Culture and social issues Supervised practicum, and 9 hours in ESL 3. Second language learning: 6 semester hours, intensive training (Peace Corps, DLI, etc.), sufficient ranking on ACTFL scale, passage of AZ Classroom Spanish Proficiency Exam, American Indian proficiency, or second language learning equivalent to six semester hours.
AR	N/A
CA	To qualify for a supplementary authorization in ESL an applicant must: 1. Hold a Single Subject, Standard Secondary, Special Secondary, Multiple Subject, or Standard Elementary Teaching Credential, AND 2. Have completed either a collegiate major in ESL from a regionally accredited college or university OR 20 semester hours, or 10 upper division semester hours of course work with a grade of "C" or better including courses covering the following areas: ESL methodology Sociological and psychological factors of second language acquisition English linguistics Intercultural communication
CO	ESL Added Endorsement Must have approved program

CT	**Initial Educator certificate requirements** 1. Bachelor's degree from an approved institution 2. Minimum of 39 semester hours in general education in five of the six areas listed: English; Natural sciences; Mathematics; Social studies: Foreign language; and Fine arts. Must also have course in U.S. history 3. Have completed a subject-area major consisting of one of the following: TESOL Minimum of 30 semester hours in TESOL AND 9 semester hours in areas of bilingualism, a foreign language or literacy development. The 30 semester hours must be distributed among: English history; Language theory; Culture and intergroup relations; and Linguistic and academic assessment of LEP students 4. Have a minimum of 30 semester hours in professional education in a planned program of study to be distributed among: Foundations of education; Educational psychology; Curriculum and methods of teaching; Supervised observation; and a course of study in special education comprised of a minimum of 36 clock hours **Professional Educator certificate requirements** 1. Completed 30 school months of successful teaching under the provisional educator certificate, or interim provisional educator certificate 2. Completed minimum of 30 semester hours beyond the bachelor's degree. Such course work need not necessarily lead to a master's degree and may include graduate or undergraduate courses consisting of: a planned program at an approved institution related directly to the subject areas or grade levels of the endorsement or in an area or areas related to the teacher's ability to provide instruction effectively, or to meet locally determined goals and objectives; or an individual program which is mutually determined or approved by the teacher and the employing agent of the board of education and which is designed to increase the ability of the teacher to improve student learning.

DC	1. Bachelor's Degree from accredited institution 2. Completion of appropriate tests as mandated by Board of Education 3. General and professional education requirements 4. 30 semester hours to include: Historical, philosophical, educational, and sociological basis of the education of language minority students (a minimum of six semester hours) to include: Foundations of ESL Education and Theory and Practice of ESL Linguistics and its relationship to cognitive development (a minimum of six semester hours) to include: Introduction to Linguistics Second Language Acquisition Introduction to Psycholinguistics Developmental literacy, reading readiness and reading for language minority students (a minimum of three semester hours) Bilingual assessment instruments used with linguistically diverse language minority students (a minimum of three semester hours) Principles of cross-cultural communication and the differences in learning styles of Language Minority students (a minimum of three semester hours) OR Substitutable experience (required verification, i.e. one year of living abroad or 45 hours of formal travel study 5. Competency in the English language as determined by the Language Minority Affairs Branch 6. Competency in the language of specialty other than English as determined by an assessment administered in the language by the Language Minority Affairs Branch
DE	Bachelor's degree from an accredited college Completion of approved teacher education program in English to Speakers of Other Languages (ESOL) OR A minimum of 24 semester hours to include Human development Methods of teaching elementary language arts, or English, or foreign language Identifying/treating exceptionalities Effective teaching strategies Multicultural education Student teaching AND Major in ESOL or completion of an approved teacher education program in ESOL OR Completion of a program in English, foreign language, or elementary education, with 3 semester hours in each of the following: Second language acquisition/psycholinguistics Methods of teaching English as a second language, or English as a second dialect Structure of the English language Second language testing Ethnic studies/multicultural education AND Completion of the intermediate level of a foreign language to satisfy a Department of Public Instruction approved proficiency test

FL	ESOL Coverage: issued only on the basis of a degree major in ESOL ESOL Endorsement: issued upon completion of 15 semester hours of college credit, or the equivalent inservice training in a district-approved add-on ESOL endorsement program or on the basis of "grandfathering" experienced basic ESOL teachers (See 1990 ESOL Agreement). Add-on programs include such options as: 60 hours telecourse plus 240 hours of district-developed ESOL inservice 60 hour Department of Education-developed overview course plus 240 hours of district-developed ESOL inservice 300 hours of district-developed and approved ESOL inservice 300 hours of Department of Education-developed inservice program Any combination of the above
GA	15 credit hours in: Applied and/or contrastive linguistics Culture and society Instructional methods and materials If district is unable to find teachers, the 15 hour requirement can be reduced to ten.
HI	N/A
ID	N/A
IL	1. Valid IL teaching certificate 2. 100 clock hours or 3 months teaching experience with ESL students and 18 semester hours in: Linguistics Theoretical Foundations of Teaching ESL Assessment of the Bilingual Student Methods and Materials for Teaching ESL Cross-Cultural Studies for Teaching LEP students Individuals who obtain certification may only teach at the grade level for which their regular certificate is valid
IN	As of 1986, in order to teach ESL, teachers must have an all-grade ESL minor. 24 semester hours must be taken from: General linguistics and English linguistics Psycholinguistics and sociolinguistics Culture and society Literature Methods and materials Practicum in ESL The minor may be professionalized when the candidate has completed 12 semester hours from at least two of the following areas: linguistics, language, literature, or ESL, six of which must be at the graduate level. Further, the candidate must meet the professionalization requirements for the basic preparation level of the standard license. As of 1976, a Bilingual and Bicultural Proficiency Endorsement has been available to add-on to a Standard or Professional License to teach in a bilingual and/or bicultural setting. Candidates must have completed 12 semester hours in the following areas: Methods of instruction in bilingual and bicultural education Development of bilingual and bicultural program Culture of the bilingual target language group

IA	N/A
KS	Certification for bilingual-multicultural applicants: Hold a valid teaching certificate Complete a state-approved program and be recommended for by a teacher education institution Provisional one-year certificate granted upon completion of 12 hours of study in an approved bilingual-multicultural program including: History and cultural patterns of the U.S. and the language of study Materials development Linguistics and bilingual-multicultural teaching methods Assessment Human interaction History and philosophy of bilingualism and bilingual-multicultural education Proficiency in English and the target language Certification for ESL applicants: Complete a state-approved program including: General and applied linguistics Language as an element of culture Process of language acquisition ESL teaching methods Assessment procedures and curriculum development
KY	ESL Endorsement on regular certificate available 12 semester hours in linguistics, applications, and methods 6 semester hours in foreign language ESL Endorsement for same grade level as regular certificate
LA	3 semester hours in methods for teaching ESL 3 semester hours in language and culture 3 semester hours in structure of the English language 3 semester hours in curriculum design for the multicultural classroom
ME	Complete 15 hours of work from the following areas: ESL methods and materials Linguistics/language acquisition Cultural studies Curriculum development Assessment and testing AND A minimum of 21 hours in the following areas: Methods of teaching ESL Language acquisition Second language acquisition theory Linguistics Curriculum development Assessment and testing Multicultural education An alternative plan includes completing 9 hours from the first list with a minimum of 3 years successful ESL teaching

MD	1. Bachelor's degree from an accredited institution 2. At least 21 semester hours of undergraduate or graduate coursework in the following four content areas: American English and linguistics Foreign language Cross cultural studies Language learning 3. At least 21 semester hours in a planned program of professional education, including the following: 6 semester hours in foundations of education, including a course in psychological foundations of education 12 semester hours in methodology for the ESOL teacher which include 3 semester hours in: ESOL methods Methods in the teaching of reading to LEP students ESOL tests and measurements 12 semester hours in supervised observation and student teaching in ESOL divided between elementary and secondary levels, or 2 years of successful teaching experience in ESOL 3 semester hours in special education, to be either an introductory or survey course or mainstreaming
MA	N/A
MI	Initial bilingual certification: Completion of 24 hours in bilingual education Bilingual endorsement: Proficiency in English and the target language Completion of 18 hours: Linguistics and bilingual methodology Coursework should develop the following skills: Knowledge of the field of bilingual education English and the target language for content instruction Linguistic analysis Cultural information and activities to develop basic skills Cultural awareness Presenting information to students Communicating with parents and the advisory committee Completion of field experience
MN	1. Bachelor's degree 2. 2 years college study of language or 4 years high school 3. 27 quarter hours in ESL 4. 36 quarter hours in ESL teacher preparation course
MS	Must have degree from an accredited university Certification is an accredited/add-on endorsement
MO	1. Baccalaureate degree, valid teacher's certificate 21 semester hours in TESOL, recommended study of one foreign language 2. 15 semester hours in: Linguistics and English linguistics Language and culture or sociolinguistics Second language acquisition Methods of teaching second language students Material for teaching English to speakers of other languages Assessment of speakers of other languages 3. 1-3 semester hours practicum in ESOL
MT	N/A

NE	Undergraduate endorsement: Supplementary endorsement which requires an applicant to have an endorsement as a prerequisite to this endorsement and completion of 3 hours in each of the following: English language/linguistics, which includes the nature of language; syntax and morphology; and language variation and change Cross-cultural communication, which includes language and culture; relationships among language and community, identity, beliefs, and values Methods in ESL Assessment and Evaluation of Second Language Learners, which includes language proficiency testing, entry and placement procedures, theories of second language acquisition, and selection, development and evaluation of curriculum based on language proficiency Practicum in teaching ESL One year study of another language or equivalence in a language other than a native language Graduate endorsement: Supplementary endorsement which requires an applicant to have a valid regular teaching certificate and either 1) be endorsed in Elementary Education, English, Speech Language Pathology, Special Education, Reading, Foreign Language Education, OR 2) have previous experience and/or training in language learning related fields A minimum of 12 graduate semester hours beyond the bachelor's degree including completion of 3 hours in each of the following: Linguistics, which shall include the structure of the language, language variation (regional and social), and language acquisition Cross-cultural communication, which includes languages and culture; relationships among language and community, identity beliefs, and values Methods in ESL Curriculum design for ESL, which includes student/language assessment and 1 credit hour practicum in an ESL setting in Grades K-12
NV	TESOL Endorsement is a limited endorsement Teachers must have had the following number of semester hours above and beyond secondary certification: 6 units for a 5-year, non-renewable endorsement (soon to be changed to 3 year endorsement) 12 units for a regular renewable ESL endorsement 18 hours and a master's degree for professional endorsement The coursework must be in: Methods and methodology Principles and theories Curriculum development Evaluation
NH	N/A

NJ	Candidates who wish to pursue bilingual/bicultural education or ESL certification must enroll in one of these programs and be recommended by the college for certification. For ESL: candidates who hold a standard NJ instructional certificate in another field and who complete the ESL subject matter requirements in a college approved program will receive a standard ESL certificate upon the recommendation of the college. The induction program required of beginning teachers does not apply to these candidates (see provisional certification requirements)
NM	24 semester hours in the teaching field in addition to 24-36 hours teaching in the field. For ESL, the initial 24 hours of education must be in an ESL program
NY	Provisional certification: 1. Completion of an approved program registered by the Department specifically for teaching ESL Achieved satisfactory level of performance in oral and written English on the NYS Certification Examinations OR 2. Completion of a program at an approved institution of higher education, which has attained an initial regular certificate along with the required experience in a state which has contracted with NYS pursuant to Education Law, section 3030 OR 3. Baccalaureate degree from accredited institution 6 semester hours in: English, math, science, and social studies 36 semester hours in one of the liberal arts and sciences 15 semester hours in professional education 15 semester hours in teaching English to speakers of other languages 1 year study of a language other than English Student teaching experience Achieved satisfactory level of performance in oral and written English on NYS Certification Examinations One year paid full-time experience as a teacher of English to speakers of other languages Permanent certification: 1. Satisfy all requirements for provisional certification 2. One academic year supervised internship 3. Master's degree related to the field
NC	N/A
ND	Certified add-on endorsement available 16 semester hours in methodology, linguistics, assessment, and a field experience
OH	N/A
OK	6 semester hours in linguistics and second language acquisition 6 semester hours in cultural history of United States 9 semester hours of teaching ESL to LEP students 3 semester hours in electives
OR	N/A
PA	N/A

RI	English language proficiency Completion of college level study of a second language: Elementary and intermediate grammar and conversation Culture and civilization Completion of 18 hours in each of the following areas: Introduction to English linguistics Curriculum and methods for ESL programs Second language assessment and evaluation Socio-cultural foundations of ESL education Second language literacy for LEP learners Theories of first and second language acquisition Completion of a 45 clock hour practicum in an ESL program
SC	N/A
SD	N/A
TN	9 quarter hours in linguistics and English linguistics 12 quarter hours in ESL pedagogy 6 quarter hours in related studies (language and culture, sociolinguistics, cross-cultural studies, etc.) 3 quarter hours in ESL student teaching
TX	1. Bachelor's degree 2. Valid TX teaching certificate 3. 12 semester hours in: Psycholinguistics Methods of teaching ESL Descriptive, applied, and contrastive linguistics 4. Successful teaching experience in ESL
UT	N/A
VT	N/A
VA	9 semester hours in linguistics distributed among general linguistics, English phonology, English morphology and syntax, and applied linguistics electives 12 semester hours of a modern foreign language (if applicant's primary language is other than English, all 12 hours must be in English) 3 semester hours of methods of teaching ESL
WA	24 quarter hours (16 semester hours) of study in ESL (e.g., elementary education, English, and/or ESL) are required for the ESL endorsement. An individual's course work must have included the following essential areas of study: Structure of language or language acquisition Culture and learning for the ESL student Instructional methods in language arts for the ESL student Instructional methods in reading for the ESL student Instructional methods in ESL
WV	N/A
WI	Regular license in subjects or grades to be taught in the bilingual/bicultural teaching assignment Proficiency in English and the target language Completion of an approved program in bilingual bilcultural education with at least 24 hours including all of the following: 9 hours in cultural and cross-cultural studies 12 hours in Foundations of bilingual bicultural education, theory and methodology of teaching students in English and the target language 8 hours in language study which develops knowledge of phonology, morphology, syntax in English and the target language

WY	The program for preparing teachers of English to speakers of other languages must include: the knowledge of phonology, morphology, and syntax of the English language; demonstrated competence in listening, speaking, reading,and writing English; knowledge of socio-cultural variables on language learning; language assessment; teaching ESL; interaction with students; management of a cross-cultural classroom; and knowledge of language development and acquisition

Provisional Teacher Certification Requirements by State

N/A = Not applicable

State	Requirements for Provisional Certification
AL	none
AR	none
AZ	Valid one year, renewable twice. Each renewal requires 6 additional semester hours in specific courses. Requirements are: valid AZ teaching certificate and six semester hours in courses stated above.
AR	N/A
CA	Emergency Multiple or Single Subject Bilingual Emphasis Teaching Credential authorizes the holder to teach LEP students at the level, and in the subject(s), of the basic authorization in the district or agency which completes the statement of need. To qualify, an applicant must have completed a bachelor's or higher degree from a regionally accredited college or university and must apply through a school district in which an emergency situation exits.
CO	none
CT	To receive a provisional educator certificate in TESOL, applicant must meet eligibility requirements for an initial educator certificate in addition to meeting either of the following: 1. Achieved satisfactory score on CONCEPT and 2. Has successfully completed the BEST assessment, as may have been made available by the Board, and 10 school months of successful service under the initial educator certificate, interim initial educator certificate, or durational shortage area permit OR 3. Has completed, within 10 years, at least 30 school months of successful experience as a teacher of TESOL in a public, approved nonpublic school or nonpublic school approved by the appropriate governing body of another state OR 4. Has served successfully under a provisional teaching certificate for a board of education for the school year immediately preceding application for a provisional educator certificate in a subject area or field appropriate to the subject area or field for which the provisional educator certificate is sought.
DC	none
DE	N/A
FL	none
GA	none
HI	none
ID	none

IL	1. Valid comparable certificate from another state 2. Bachelor's degree from a recognized institution of higher learning 3. Courses offered as a basis for provisional certification must be approved by the State Board of Education in consultation with the State Teacher Certification Board
IN	none
IA	none
KS	See certification information
KY	N/A
LA	none
ME	See certification information
MD	none
MA	none
MI	none
MN	1. Bachelor's degree 2. 1 year teaching experience in ESL Valid for two years
MS	1. Valid teaching certificate 2. 3 years experience Teachers have one year to take the MTE (Mississippi Teaching Assessment Exam)
MO	N/A
MT	none
NE	none
NV	If 6 units or closer away from obtaining endorsement, a provisional certification is given for 1 year, non-renewable. A provisional limited certification is given for those who have no previous relevant coursework but want to obtain an endorsement
NH	none
NJ	Those candidates who complete subject matter and professional education requirements in a college approved program will receive the Certificate of Eligibility with Advanced Standing and upon employment will receive provisional certification. Upon successful completion of the induction year, a standard certificate will be issued
NM	none
NY	See certification requirements
NC	none
ND	N/A
OH	none
OK	N/A
OR	none
PA	none
RI	N/A
SC	N/A
SD	N/A

TN	N/A
TX	Elementary education (less than 20 hours) High School is provisional Provisional certification/hardship permit is also given in hardship districts
UT	N/A
VT	none
VA	none
WA	N/A
WV	N/A
WI	none
WY	N/A

Appendix X

Range and Frequency of Primary (Home) Languages Other Than Spanish, Vietnamese, Korean, and Chinese

RANGE AND FREQUENCY OF PRIMARY (HOME) LANGUAGES OTHER THAN SPANISH, VIETNAMESE, KOREAN, AND CHINESE

*Do not exist as languages according to Ethnologue: Languages of the World.

Afghan (see also Pashto)	6
African (for African dialects or African languages) *	8
Afrikaans	1
Akan	1
Albanian	11
Algonquin	1
Amharic	20
Apache	3
Arabic	122
Arapaho	1
Arikara	2
Armenian	14
Asian *	1
Assiniboine	2
Assyrian	2
Bangladesh	4
Bannock	2
Belorussian	1
Bengali	11
Blackfoot	5
Brazilian Portuguese	3
Bulgarian	2
Burmese	4
Cambodian (see also Khmer)	47
Cantonese (see also Asian, Chinese, Mandarin)	4
Canvall *	1
Chaldean (for Arabic/Chaldean)	15
Chamorro	1
Cherokee	21
Cheyenne	2
Chichasaw	2
Chich	1
Chichewa	2
Chippewa	2
Choctaw	11
Creola	1
Cree	3
Creek	6
Creole (see also English Creole)	8
Crioulo (Cape Verdean)	2
Crow	2
Czech	4
Dakota	1
Dutch	4
Eastern European *	1
East Indian *	2
English Creole (see also Creole)	1
Eritrean *	1
Eskimo *	3
Estonian	1
Ethiopian	16
European *	2
Farsi	52
Filipino *	1
Finnish	1
Flemish	1
French	29
French Creole *	5
Fula	1
Ga	1
German	26
German dialect *	1
Ghana *	1
Greek	27
Gros Ventre	2
Gudaji *	1
Gujarati	20
Guyanese	1
Haitian Creole	52
Hawaiian Creole English	1
Hawaiian	1
Hebrew	13
Hidatsa	3
Hindi	42
Hichiti	1
Hmong	100
Hopi	1
Hungarian	9
Hvalapai	1
Ibibio	1
Ibo	1
Icelandic	1
Ilokano	8
Indian (for Indian dialects) (see also Native American)	25
Indonesian	8
Inupik	1
Iranian *	4
Iraqi *	2
Italian	21
Jamaican *	1
Jamaican Creole English	1
Japanese	82
Keres	1
Khmer (see also Cambodian)	86
Kickapoo	2
Kinyarwanda	1
Kootenai	2

Kpelle	1
Kurdish	11
Krio	2
Lakota	5
Lao	143
Latvian	1
Lesotho	1
Liberian English	5
Lingala	1
Lithuanian	2
Macedonian	5
Malay	7
Malayalam	3
Malaysian	3
Maltese	1
Mandan	2
Mandarin (see also Chinese, Cantonese, Asian)	8
Marshallese	1
Mayar *	1
Mitchif	1
Mitchiti (also Mikasuki-Native American)	1
Micronesian *	2
Middle East *	2
Mien	17
Moldavian	1
Moroccan (see also Arabic) *	2
Native American *	28
Navajo	24
Nepalese	2
Nigerian *	2
non-standard English *	2
Norwegian	3
Ojibwa	2
Oromo	1
Pacific Islander *	1
Pakistani	3
Palaun	1
Pashto	3
Persian	1
Polish	61
Portuguese	98
Portuguese Creole	1
Punjabi	21
Rumanian	44
Russian	150
Salish	2
Samoan	5
Seminole	3
Senegalese *	1
Serbo-Croatian	13
Shawnee	1
Shoshone	3
Siberian Yupik	1
Sindi	1
Sinhalese	1
Sioux	3
Slavic	1
Somali	15
South East Asian	6
Sudan *	1
Swahili	6
Swedish	3
Swiss German *	1
Syrian Arabic	1
Tagalog	98
Thai Dam (see also Thai)	1
Taiwanese	2
Tamil	4
Tangria *	1
Tanzanian *	2
Tewa	2
Thai	37
Tiaa	1
Tigrinya	15
Tiwa	5
Tlingit	1
Tohono O'Odham *	2
Tongan	13
Towa	1
Trukese	1
Turkish	10
Twi	2
Ukrainian	23
Urdu	35
Visayan/Cebuano	5
Yiddish	1
Yoruba	1
Yugoslavian *	5
Yupik	3
Zuni	1

Appendix XI. Primary Home Languages Used for Instruction

*Do not exist as languages according to Ethnologue: Languages of the World.

Albanian
Amharic
Apache
Arabic
Armenian
Assiniboine
Belorussian
Bengali
Blackfoot
Cambodian
Cantonese
Chaldean
Cherokee
Chinese
Choctaw
Cree
Creek
Creole
Crioulo (Cape Verdean)
Dakota
Eritrean *
Farsi
French
French Creole
German
Greek
Gros Ventre
Gujarati
Haitian Creole
Hawaiian
Hawaiian Creole
English
Hidatsa
Hmong
Ilokano
Inupik
Japanese
Keres
Khmer
Kickapoo
Kootenai
Korean
Kurdish
Lakota
Lao
Mandarin
Mien
Native American *
Navajo
Ojibwa
Polish
Portuguese
Punjabi
Rumanian
Russian
Salish
Samoan
Seminole
Siberian Yupik
Sioux
Spanish
Tagalog
Tewa
Thai
Tigrinya
Ukrainian
Urdu
Ute
Vietnamese
Yupik

Appendix XII
ESL/Bilingual Education Mandated by the State

States with Mandated ESL/Bilingual Education

N/A = No information available

State	ESL/Bilingual Education Mandated by the State
AL	Yes
AK	Yes
AZ	Yes
AR	No
CA	Yes
CO	No
CT	Yes
DC	Being developed
DE	Yes
FL	ESOL by consent decree in 1990
GA	ESL
HI	ESL
ID	ESL
IL	Yes
IN	Yes
IA	No
KS	N/A
KY	No
LA	Yes
ME	No
MD	ESL
MA	Yes
MI	Yes
MN	Yes
MS	No
MO	N/A
MT	N/A
NE	No
NV	Promulgated Bilingual Endorsement as of September 1996
NH	ESL
NJ	Yes
NM	Bilingual
NY	Yes
NC	N/A
ND	No

OH	N/A
OK	ESL
OR	No
PA	N/A
RI	ESL
SC	No
SD	No
TN	ESL
TX	Yes
UT	N/A
VT	No
VA	Yes
WA	Yes
WV	No
WI	Yes
WY	N/A

Appendix XIII

Language Abbreviations

Language Abbreviations

ABV	Arabic
APJ	Apache
ALS	Albanian (Albania, Yugoslavia)
AMH	Amharic
ARM	Armenian
ASB	Assiniboine
ASE	American Sign Language
BLC	Blackfoot
BNG	Bengali
CCT	Choctaw
CER	Cherokee
CHN	Chinese (Mandarin)
CJD	Chamorro
CLD	Chaldean
CRO	Crow
CZC	Czech
DNS	Danish
DUT	Dutch
ENG	English
FRN	French
GER	German
GJR	Gujarati
HAT	Haitian Creole French
HBR	Hebrew
HOP	Hopi
HMG	Hmong
HND	Hindi
HNG	Hungarian
IGR	Ibo (Nigeria)
ITN	Italian
JAM	Jamaican Creole English
JPN	Japanese
KDB	Kurdi/Kurdish
KKN	Korean
KMR	Khmer/Cambodian
KRI	Krio (Hambia, Papua New Guinea)
LAH	Lahu (Laos)
LKT	Lakota
LTN	Latin
MFY	Mende (Sierra Leone, Liberia)
MIK	Mitchiti (Mikasuki-Native American)
MJS	Malayalam
MLI	Malay
MRT	Marathi
NAV	Navajo
NOL	Laotian/Lao
NRR	Norwegian
OJI	Chippewa
PRS	Farsi (Western)
PNJ	Punjabi
POR	Portuguese
PQL	Polish
PRS	Farsi (Eastern)
RUM	Rumanian
RUS	Russian
RUW	Belorussian
SLO	Slovak
SOM	Somali
SPN	Spanish
SRC	Serbo-Croatian
SSO	Sesotho
SWD	Swedish
TAO	Tiwa (Northern)
TCV	Tamil
TGL	Tagalog
TGN	Tigrinya
THJ	Thai
TIX	Tiwa (Southern)
TYR	Thai Dang
UKR	Ukrainian
URD	Urdu
VIE	Vietnamese
YOC	Mien
YOR	Yoruba (Nigeria)
YUH	Cantonese
YUM	Quechan